Mirage of Health. Utopias, progress, and biological change. Rene Dubos. Harper, New York, 1959. xv + 236 pp. \$4.

This book is one in a series, called "World Perspectives," designed to interpret creative forces in modern civilization. Each volume will be written by an outstanding thinker; the list of authors already announced begins with Konrad Adenauer and includes such names as Niels Bohr, Walter Gropius, Lewis Mumford, and Sarvepalli Radhakrishnan.

For this volume Rene Dubos has written a series of essays discussing various aspects of health. The essays present an amazing number of delightful and often historical glimpses, interpreted and connected by the author's ranging comments.

The first chapter, "The gardens of Eden," tells rather whimsically what man does when he is convinced that he will be healthy as long as he stays close to nature. Thus, Western man is described as believing in the holiness of seminudism and raw vegetable juice. In the next section, on biological and social adaptation, there is further discussion of the relationship of society to nature. Dubos says: "In a wise society leisure ... should play a role similar to that of national parks and wild life reservations, where plants and animals retain some chance to practice the mechanisms which have permitted evolutionary adaptation.

"Struggle and partnership in the living world" tells how man early achieved mastery over ferocious animals but not over microbes; the latter are still generally thought of as bad, though it is pointed out that this is an anthropocentric judgment and that in fact some microbes are good, even for man. When man meddles with nature, whether with animal predators or with bacteria in the intestine, it is risky. Even from the microbe's standpoint, partnership is desirable, for when a parasite's host is killed the parasite's own survival is jeopardized.

Under "Environment and disease" and "Hygeia and Asclepius," the recurring theme is the fallacy of trying to determine specific causes. The partial conquest of tuberculosis, cholera, syphilis, and many other infectious diseases is easily ascribed to new drugs, but better sanitation, better nutrition, and the like are of greater significance. Dubos says, "The introduction of inexpensive cotton undergarments easy to launder and of transparent glass that brought light into the most humble dwelling, contributed more to the control of infection than did all drugs and medical practices."

There is a general impression that diseases remain more or less unchanged in character over long periods of time, but, in fact, they are constantly changing, especially in a population not previously exposed. Also, when one disease is rooted out, another is likely to take its place. Some of the most stimulating passages in the book appear in the section on social patterns of health and disease. The highly organized social structures of today are set up to provide security from birth to death, but "this security is often bought at the price of boredom." Danger, real or imaginary, used to provide the exhilarating unexpected. Man needs strife and adventure, for he cannot escape his biological past. These thoughts carry the reader on to the chapter on the effects of disease on populations and civilization, where it is epigrammatically stated that "to save people from death by measures of public health is . . . easy, but no solution is in sight for the problems created by their survival." A sidelight on the vital problem of population shows the political implications. In former times the majority of the population was youthful and eager for economic expansion; now, suddenly, the average age has risen and continues to rise, and the concern of the majority is with problems of security and retirement.

The final section, on utopias and human goals, suggests that we may rediscover merit in Plato's philosophy when the world becomes crowded with the aged, the ill, and the defective. In the past the scientist has been happily occupied with his discoveries, descriptions, classifications, and inventions, but now he is being called to account for the long-term consequences of his acts. This calls for a new alertness and ability to predict oblique courses, for man will not revert to an arrested, antlike society. Certain men will always have goals which transcend simple biological purpose. They are not looking for paradise, because paradise would be static. Man requires adventure.

This book will be a treat for readers, and it will make them think.

WINDSOR CUTTING Department of Medical Microbiology, Stanford University Southeastern Indians, Life Portraits. A catalogue of pictures, 1564–1860. Emma Lila Fundaburk, Ed. The Editor, Luverne, Ala., 1958. 136 pp. Illus. \$7.50.

This book, a companion volume to the earlier Sun Circles and Human Hands. brings together 354 pictures. Many are portraits of noted individuals, while others depict the modes of life, customs, and clothing of the historic Indians of the southeastern United States. The illustrations were judiciously selected from the drawings and paintings of many European, colonial, and American artists and from later lithographs and engravings. The pictures are carefully identified and are arranged chronologically by artist. They are discussed in extensive notes, in which pertinent historical information is presented, together with observations about the life and works of the various artists. The sources of the pictures are listed; there is an index of artists, engravers, and authors, as well as a subject index.

Emma Fundaburk has made a valuable contribution to ethnography in making available in one volume so many pictures that are a basic source of information for students and others interested in the southeastern Indians. In addition to many of the better known ones, she presents a number of pictures that previously had been seen by only a few ethnologists.

This book and the preceding volume, about the prehistoric Indians, give all the material that is essential for a good understanding of the aboriginal Americans in the southeastern United States.

FRANK H. H. ROBERTS, JR. Smithsonian Institution

Fishes of the Great Lakes Region. Bull. No. 26. Carl L. Hubbs and Karl F. Lagler. Cranbrook Institute of Science, Bloomfield Hills, Mich., rev. ed., 1958. xi + 213 pp. Illus. + plates. \$5.

This compact and accurate book gives descriptive keys and illustrations of the various fishes, now known to total 234 species and subspecies, in the Great Lakes and their tributaries. The introductory pages give pertinent accounts of zoogeography, glaciation, anatomy, and methods of study related to fishes of this region. Comments about distri-