

regard is the paper by Utah anthropologist (and volume coeditor) Kristen Hawkes, who offers a very detailed treatment of what we know about human life histories and the putative theories behind them. It is well known in the guppy world that the age at which predation falls most heavily strongly influences earlier development—if the predation comes early, then the best bet might be to try to beat it with very early development, and later predation allows for more leisurely maturing. Hawkes suggests that this might apply to humans also. This would surely make sense of our own Western societies, where there is time for development without threat—although one expects different patterns within our societies, with inner city denizens experiencing different selection pressures from those in safer environments.

Also covered in this volume are the history of human evolution and the pertinent fossil findings, comparative studies over hunter gatherer societies still in existence, and problems of taxonomy, among other issues. All in all, this is a useful collection that will introduce readers to the issues and problems of human life history.

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THE BIOLOGY OF HUMAN LONGEVITY: INFLAMMATION, NUTRITION, AND AGING IN THE EVOLUTION OF LIFESPANS.

By Caleb E Finch. Academic Press. Burlington (Massachusetts): Elsevier. \$69.95. xiii + 626 p; ill.; name and subject indexes. ISBN: 978-0-12-373657-4. 2007.

This is a monumental book that reviews and discusses over 3000 scientific publications on mechanisms of aging and longevity, with special emphasis on the role of inflammation in senescence and age-related degenerative diseases. The author is an internationally recognized leader in the field of biogerontology. His volume could serve as a useful reference for a wide readership, including biomedical scientists, biogerontologists, and clinicians in the areas of vascular disease, diabetes, obesity, Alzheimer's disease and other neurodegenerative diseases, genetics of aging and longevity, animal models of aging, anthropology and primatology, evolutionary biology, demography, and epidemiology.

This volume is not a particularly easy reading, because of the complexity of the study topic (with mixed and sometimes even controversial research findings), making it difficult to reach general conclusions. Fortunately, the book is well illustrated with numerous tables and pictures (136 images), which makes it much easier to follow.

Finch begins with a discussion of the role of inflammation and oxidation in aging and chronic diseases (Chapter 1), including an overview of experimental models for aging studies, description of inflammation process, as well as four types of damage (free radical damage, glycoxidation, chronic proliferation, and mechanical bystander effects). This chapter also examines arterial aging and atherosclerosis, Alzheimer's disease and vascular-related dementias, inflammation in obesity, and the processes of normal aging in the absence of specific diseases. The author concludes that in most chronic diseases of aging, oxidative stress and inflammation are prominent; moreover, inflammatory changes are observed in many aging tissues even without specific pathology.

Other topics discussed in this volume include: the role of infections, inflammogens, and drugs in the aging process (Chapter 2); energy balance, inflammation, and aging (Chapter 3); the role of nutrition and infection in the developmental influences on aging (Chapter 4); genetics of aging and longevity (Chapter 5); and evolution of human life span with forecasts for the future (Chapter 6). In our opinion, the most interesting part of this book is Chapter 4, where Finch provides an excellent overview of the Barker Hypothesis of fetal origins of adult disease, and expands this hypothesis further to consider the role of early-life infections and inflammation in the aging process later in life.

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THE EVOLUTION OF DEATH: WHY WE ARE LIVING LONGER. *SUNY Series in Philosophy and Biology.*

By Stanley Shostak. Albany (New York): State University of New York Press. \$80.50 (hardcover); \$26.95 (paper). xiii + 246 p; ill.; index. ISBN: 0-7914-6945-X (hc); 0-7914-6946-8 (pb). 2006.

The author has an innovative, if eccentric, notion about why human longevity has increased so dramatically over the past few centuries. His idea is that humans have become recently juvenilized, in that they preserve juvenile numbers of stem cells into later life. They manage this by somehow diverting cells from the primordial germ cell pool to the pool of stem or progenitor cells devoted to our renewing tissues as we age. This hypothesis is presented on pages 141 to 148 of a book with 160 pages of text (excluding preface and afterward). No shred of evidence is adduced to support the hypothesis, except that human fecundity in technologically advanced countries has been decreasing lately. I am not sure whether this suggests that people emigrating from nontechnological coun-