and "Guide to Related Topics." Unfortunately, the work is sparsely illustrated and the chronology is not annotated (simply listing date and conflict title). The source material for the conflicts is biased toward the colonialists as the author notes, yet it still provides vivid accounts of events and endeavors to present the African perspective when source materials are available. Recommended for all college and university libraries.—Brent D. Singleton, Coordinator for Reference Services, California State University, San Bernardino, California

The Five Senses and Beyond: The Encyclopedia of Perception. Edited by Jennifer L. Hellier. Santa Barbara, CA: Greenwood, 2016. 496 p. Acid free \$89 (ISBN 978-1-4408-3416-5). E-book available (978-1-4408-3417-2), call for pricing.

The 219 entries in this book are a limited, eclectic collection of common and uncommon terms, complex concepts, physical locations, medical diagnoses, and a few persons and associations related to some aspect of perception. These entries are not grouped into the five senses (sight, hearing, taste, smell, and touch), which would have been useful to those wanting to understand one of the senses. The only sense that has an entry titled with its common name is touch, though smell, sight, and hearing have "See" references in the index. "Taste Aversion," "Taste Bud," and "Taste System" are entry terms.

The "beyond" of the book's title refers not only to several persons and organizations, but to terms like "Membrane Potential: Depolarization and Hyperpolarization" (221–24), an entry which describes the chemistry and physics of how neurons transmit electrical signals down their axons without relating the process to any of the senses. "Hunger" (187) seems to be part of the "beyond" group. "Thirst" (406), also, included, may be confused by the brain with hunger, so it is part of perception.

Interspersed throughout this book are several activities to demonstrate some characteristic of a particular term. For example, accompanying the description of "Sensory Receptors" are the directions for "Neuron-Building with Clay" (359) using small balls of plasticine clay in four colors. The description of the "Parietal Lobe" includes a "Brain Cut-Out Hat Activity" (301) using the four patterns in the Appendix, which should be enlarged and photocopied onto a card, cut out, and taped into a hat to visualize brain geography.

"Homunculus" (182) has a separate entry that includes no reference to the mythical meaning and use of the word (182), other than its translation from Latin (little man). "Somatosensory Cortex" (363) and "Somatosensory System" (365) are also included, and with "Homunculus" are very closely related in describing the parts of the brain that recognize pain, touch, temperature, and spatial orientation. Sensory homunculus is described again in the "Somatosensory Cortex" entry.

Another oddity, among many, is "Noradrenaline/Norepinephrine" (261), which functions as a neurotransmitter and

as a hormone. Though it is produced by the adrenal glands, the definition and discussion relates to norepinephrine being prescribed to treat low blood pressure. Its relationship to perception is only suggested by a list of side effects such as swelling of the face, lips, and tongue.

There are no illustrations of the parts of the eye or ear, though some of the structures do have entries. A "Saccule" (345) is one of the otoliths (ear stones) in the ear, which are required for balance. The other ololith is the utricle, which does not have an entry. The "Vestibular System" (431) entry includes both saccule and utricle. Only one of the four basic eye movements, "Saccades" 345), is described. The other three (smooth pursuit eye movements, vergence eye movements, and vestibulo-ocular reflex movements) did not have entries or places in the index.

The strangest entry is the "Mosquito Machine" (235), designed to discourage young people from congregating where they might vandalize because the fabricated sound of buzzing mosquitos annoys them while it does not annoy older people because they are unlikely to be physically able to hear the sound. There is concern that high-pitched sounds may be detrimental to children's hearing.

The entries appear to be accurate, especially those describing diseases, syndromes and sensory conditions. The "Further Reading" suggestions are mostly medical journals and medical textbooks which may not be readily available to those wanting to learn more about the relevant term. The index is very detailed. One would expect that fifty contributors would produce more than 219 entries, especially since the editor wrote or co-wrote many of the entries. This is an optional purchase for most libraries.—*Linda Loos Scarth, Cedar Rapids, Iowa* 

Ghosts in Popular Culture and Legend. Edited by June Michele Pulliam and Anthony J. Fonesca. Santa Barbara, CA: Greenwood, 2016. 403 p. Acid free \$89 (ISBN 978-4408-3490-5). E-book available (978-1-44083-491-2), call for pricing

The co-editors are June Pulliam, who teaches classes in horror literature, YA fiction, and film, and Anthony Fonesca, who has written about horror and also has a background in information literacy. They previously co-authored *Hooked on Horror: A Guide to Reading Interests in the Genre*, and have now applied their talents and expertise to create a work that contains accessible information about a popular topic.

The helpful introduction orients the user to the fact that although the concept of ghosts originated in ancient times, it has morphed through the ages and remains a mainstay of most cultures. Although some cultures believe ghosts are monster-like creatures, there are also friendly ghosts like Casper and Topper.

I was afraid that I would not be able to sleep while reviewing this book, but I was wrong. I found myself carrying the book around and reading all the entries. This work engages the reader with 222 signed, accessible articles on

## **SOURCES**

specific authors like Ramsey Campbell and Peter Straub, folklore like Bloody Mary and pop culture references like *Ghostbusters* and Casper. Articles range in length from one to four and a half pages, supply basic information, and generally conclude with "see also" references. There is an unannotated bibliography.

It is difficult to find any work with the same scope. Matt Cardin's *Ghosts, Spirits, and Psychics: The Paranormal from Alchemy to Zombies* (ABC-CLIO, 2015) contains 121 articles but is focused mainly on paranormal phenomena, encounters, famous people, and institutions, like J. B. Rhine's extrasensory perception experiments at Duke University. Also, the articles in Pulliam and Fonseca's book are more scholarly and contain recommended sources for additional reading.

The topic of ghosts is very popular with teens, tweens, and adults. This work is appropriate for high school, community college, and public libraries. I recommend it highly.—Dona J. Helmer, Librarian, Anchorage School District, Anchorage, Alaska

*Great Events in Religion: An Encyclopedia of Pivotal Events in Religious History.* Edited by Florin Curta and Andrew Holt. Santa Barbara, CA: ABC-CLIO, 2017. 3 vols. Acid free \$310 (ISBN 978-1-61069-565-7). E-book available (978-1-61069-566-4), call for pricing.

Designed to be comprehensive in its scope, this set covers major religious events from remote prehistory (ca. 60,000 BC) to the highly contemporaneous (AD 2014). Taken together, the editors have done an admirable job in choosing topics to cover and in compiling a highly readable, informative, and thought-provoking compilation. The first volume covers the period of prehistory to AD 600 and includes entries for topics as diverse as the first burials that indicate a belief in an afterlife found in Shanidar Cave, Iraq (ca. 60,000 BC), the discovery of the oldest human-made place of worship at Göbekli Tepe in modern Turkey (tenth millennium BC), the ritual use of alcohol (ca. third millennium BC), the founding of Buddhism (sixth to fourth centuries BC), the Roman conquest of Judaea in 63 BC, the conversion of Saul (Saint Paul) in AD 34, the Council of Chalcedon in AD 451, and the papacy of Gregory the Great (reigned AD 590–604). Volume 2 covers from AD 600 to 1450, thus encompassing the Middle Ages in the West, the rise of Islam in the Middle East, the growth of Christian monasticism, the crusades, the development of the first universities in Europe, and the lives of Joan of Arc and Jan Hus. The final volume covers from 1450 to the present, starting with the fall of Constantinople to the Ottoman Turks and ending with the rise of the Islamic State (ISIS, ISIL, or Daesh) in 2014. In between are articles on the Roman Inquisition (1542-present), Francis Xavier's mission to Japan (1549), Martin Luther and the start of the reformation (1517), the publication of the King James Bible (1611), the publication of the Book of Mormon (1830), the discovery of the Dead Sea Scrolls (1947), Vatican Council II (1962-65), and the Yom Kippur War (1973).

The almost 450 individual articles range from one to five pages in length and were written by over one hundred contributors, representing a wide variety of disciplines and many countries. Each entry includes "see also" references to related articles and a short bibliography of mainly recent works. The references are compiled into a comprehensive bibliography at the end of each volume, although a spot check revealed that some items from the individual entries did not make it into the bibliography. A comprehensive index for the set can be found at the end of the third volume. The index is an essential feature of the set since the entries are arranged in chronological order. Thus, to find entries on specific topics whose time frame is unknown, the reader must use the index. The reader must be cautious, however, since the index does display some quirks. For example, there is no cross reference from the entry on "Mohammad (prophet)" to the more expansive entry on "Muhammad (prophet, Muhammad ibn 'Abd Allah)." Each volume also provides an alphabetical list of entries, but this can be less than helpful since the entry titles often obscure the topic. For example, instead of an entry on the Book of Mormon, the entry is entitled, "Publication of the Book of Mormon."

Although many of the topics included in this set can readily be found in other resources, their compilation into such a handy, chronologically ordered format is compelling. Since the history of religion also mirrors history in general, this set will be extremely helpful especially for students in liberal arts colleges and seminaries and for those universities with specialties in history, the history of religion, and religious studies.—*Gregory A. Crawford, Interim Director, School of Humanities, Penn State Harrisburg, Middletown, Pennsylvania* 

How Animals Think and Feel: An Introduction to Non-Human Psychology. By Ken Cheng. Santa Barbara, CA: Greenwood, 2016. 294 p. Acid free \$46.40 (ISBN 978-1-4408-3714-2). E-book available (978-1-4408-3715-9), call for pricing.

This affordable single-volume work is the first book by Dr. Ken Cheng of McQuarie University, who has published many journal articles on animal behavior on a variety of species in the past thirty years. Cheng's experience as an accomplished researcher and professor is evident in his readable, well-researched, and entertaining writing. How Animals Think and Feel features nine chapters that focus on topics related to animal cognition and emotions. In addition, there are nine case studies of animals that reflect a diverse representation of animals, from jumping spiders to apes, with a concluding chapter putting human cognition and emotion into the context of animal behavior. A key feature of this book are the debates featured in some chapters featuring multiple researchers from universities across the world discussing topics as diverse as "How Important Is the Actual Information Conveyed through Animal Communication" to "What Is Special about Humans?". One of the strengths of How Animals Think and Feel is Cheng's ability to remain on