The author concludes the book in Chapter 7 with the messages 'we cannot ignore science' and 'science, at least the parts that one must regard as established, must be accepted and upheld by all, believers and non-believers, particularly educated people.' Sciences that are based on certified facts can prevent nonfactual interpretations in religion while religion can shed light to sciences to progress in the right direction. As expressed by Albert Einstein in his famous quote 'Science without religion is lame, and religion without science is blind," denying one another is harmful to both religion and sciences. For example, if modern medicine subscribed to the notion that every being is in its highest creation, rather than the notion that every being is the outcomes of a chain of random events, it would not fall into the mistake of searching for a baby food superior to mother's milk or viewing menopause as an illness and attempting to treat it with estrogen supplements, with apparent adverse results. Scientists would rise up and view creation from the perspective of the creator, like Einstein did, and would produce innovative theories about how the universe should be running.

In conclusion, the book is very informative and enjoyable to read, but the arguments about the theory of evolution must be taken with a grain of salt. The main message conveyed in the book is that confirmed scientific facts and true religious messages cannot be in contradiction, and a pious person should not hesitate to undertake scientific studies. In fact, with proper point of view, studying science and learning the intricacies of creation can turn into a religious experience by contemplating the knowledge, power and the art of the Creator.

Reviewed by Yunus A. Çengel Professor Emeritus of Mechanical Engineering University of Nevada, Reno USA J. Baird Callicott and James McRae (eds.), Japanese Environmental Philosophy, Oxford University Press, 2017, xxiii+310 pp.

Japanese Environmental Philosophy, edited by John Baird Callicott and James McRae, examines the Japanese worldview from several perspectives of Japanese culture and thought. Callicott has been a pioneer of this field since he taught the world's first environmental ethics course in 1971. His concerns for a traditional conception of nature include both Western and Eastern cultures. In 2009, one of his books, Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback, was translated to Japanese by Tomosaburō Yamauchi, who offered the original idea of Japanese Environmental Philosophy as noted in the Introduction (p. 1). Yamauchi also contributes to the volume as the author of chapter 9.

The other coeditor, James McRae, is an expert in Japanese philosophy and ethics, and he authors chapter 3. Callicott and McRae already worked together as coeditors with Environmental Philosophy in Asian Traditions of Thought in 2014. The previous collaboration covered three Asian countries: India, China, and Japan. This second collaboration, however, focuses solely on Japan and provides further, profound insight and a diversified analysis. This book is enriched by the multiplicity of Japanese culture and thought, much like the interconnectedness suggested by the metaphor of "Indra's Net," so it is also quite useful for students of Japanese studies. This volume contains contributions from 15 authors who utilize a variety of rich resources: from traditional Shintoism to Confucianism and Zen Buddhism; from Japanese folk dance and Japanese gardens to contemporary civil engineering; from Kūkai and Dōgen to Nishida and Watsuji; and from Plato to Heidegger and Whitehead.

The first part of the book, "Nature in the Japanese Tradition of Thought," is devoted to demonstrating the concept of nature in Japan. Augustin Berque addresses the subject of nature in chapter 1, "Thinking the Ambient: On the Possibility of Shizengaku (Naturing Science)." Modern Western science assumes that the human being is always the subject and nature the object. However, in the Japanese linguistic constitution, the subject is not limited to the human. Berque starts his consideration with haiku (a form of Japanese seventeen-syllable poetry) and ends with the biological theory of Kinji Imanishi (1902–1992), finding a clue to overcoming anthropocentrism.

Chapter 2, "Pure Land Ecology: Taking the Supernatural Seriously in Environmental Philosophy" is by Leah Kalmanson. She is interested in the uncertain "distinction between the natural and the supernatural" (p. 29) in the True Pure Land Buddhism that implores the help of Amida Buddha. Completely obedience to Amida, the supernatural tariki ("other-power"), creates a selfless and non-interferential attitude for the natural environment because the exercise of "own-power," which continues into environmental destruction by human beings, is no longer worthy. In her opinion, this connection, which is beyond the description of the human, natural, and supernatural, will give a productive solution to overcoming Eurocentric assumptions.

In chapter 3, "From Kyōsei to Kyōei: Symbiotic Flourishing in Japanese Environmental Ethics," McRae introduces the concepts of kyōsei (symbiosis) and kyōei (mutual flourishing). Kyōsei originated from biology and kyōei was developed by Jigorō Kanō (1860–1938), a leading educator in the modern Japan, who is famous as the founder of jūdō. Both kyōsei and kyōei warn that to make one's own benefit a solo priority is not the best way. This ethic could extend from interpersonal relationships like business to finally include the worldwide environment.

In the second part of the volume, "Human Nature and the Environment," all three chapters reconsider modern Western anthropocentric views on the natural environment. In chapter 4, "Kūkai and Dōgen as Exemplars of Ecological Engagement," Graham Parkes presents learning from Kūkai (774–835) and Dōgen (1200–1253). According to Kūkai, the world –as the body of the Buddha– consists of the Six Great Processes; earth, water, fire, wind, space, and awareness. Therefore, the chapter concludes that "to kill capriciously, or exploit what we call 'natural resources' unnecessarily, would be to desecrate the body of the Buddha" (p. 71). Dōgen also shares "the nonduality of body and mind" (p. 72) and "he recalls our utter dependence on the well-being of the natural world for our own well-being" (p. 72). Their teachings offer a guideline for our action to save the earth.

In chapters 5 and 6, the ideas of Tetsurō Watsuji (1889–1960), especially those from his representative work Fūdo (Climate), are carefully investigated. Chapter 5, Yū Inutsuka's "Sensation, Betweenness, Rhythms: Watsuji's Environmental Philosophy and Ethics in Conversation with Heidegger," begins with the historical transition of the term "environment." She implies and then demonstrates Watsuji's proposal of "the environment as an entity that is not external to human existence, but rather internal" (p. 88). Building from the criticism of Martin Heidegger (1889–1976), Watsuji finds that the environment has rhythms such as seasonal circulation, which are public within human society. According to Watsuji, sharing

this spatial and temporal structure makes human relationships trustful (his terminology) and ethical.

In chapter 6, "Climate Change as Existentialist Threat: Watsuji, Greimas, and the Nature of Opposites," author Steve Bein applies the semantic square of Algirdas Julien Greimas (1917–1992). Through this exercise, Bein aims "to clarify why climate change is not just an existential threat but also an existentialist one" (p. 105). In his conclusion, he notes that climate forms a social network wherein we are already and always grounded, and that, "climate change necessitates cultural change, and cultural change necessitates individual change" (p. 116). He suggests that this explains why some people resist accepting the evidence of climate change; they would not want to change what we are and how we are as existentialists.

The third part of the volume, "Environmental Aesthetics," focuses on aesthetic aspects of Japanese philosophy and clarifies its presupposition regarding the unity of humankind and nature. Chapter 7, "Whitehead's Perspectivism as a Basis for Environmental Ethics and Aesthetics: A Process View on the Japanese Concept of Nature" is by Steve Odin who finds a similarity between Alfred North Whitehead (1861–1947) and Sino-Japanese Buddhist philosophy regarding the concept of nature. Whitehead regards "nature as an organization of aesthetic perspectives with intrinsic value" (p. 124). The valuing of beauty elicits moral concern for the whole universe and, according to the monadology of Gottfried Wilhelm Leibniz (1646–1716), the universe is what each monad reflects "from its own unique perspective as a microcosm of the macrocosm" (p. 129). The metaphor of Indra's Net in Kegon (Hua-yen) Buddhist teaching describes such interpenetration between the parts and the whole, and one and many. George Herbert Mead (1863–1931), Lawrence Kohlberg (1927–1987), and Jürgen Habermas (1929–) extend Whiteheadian perspectivism to deduce all perspectives of the biotic community, including other humans, animals, plants, soil, water, and so on.

Chapter 8, Yuriko Saitō's "Japanese Gardens: The Art of Improving Nature," presents the principle of the Japanese garden that is expressed as "following the request" of nature in Zen Buddhism. As lay Buddhists, Japanese landscape gardeners exhibit "the perceived features of empirical nature" (p. 153) to realize "the fundamental belief that everything whatsoever is Buddha-nature" (p. 151). From the standpoint of the idealization of nature, "both Japanese and Western formal gardens share the same goal" (p. 145). For the Japanese, the essence of nature is accomplished as being itself. Therefore, the artists conceal all traces of manipulation in their work. On the other hand, for the Western gardeners, the essence of nature is order, unity, and coherence. These are "conceived in the intellect" (p. 153), and represented by "the

rigid geometrical patterns and symmetrical order" (p. 153).

In chapter 9, "KUKI Shūzō and Platonism: Nature, Love, and Morality," Tomosaburō Yamauchi advocates that the love of nature and resignation of excessive desire are remedies for today's environmental crises. These two principles are extracted from the aesthetic philosophy of Shūzō Kuki (1888–1941). To this anthropological framework, he applies the Platonic three classes of rulers, guardians, and common people in political theory and reason, spirit, and appetite in his soul theory. According to Kuki, humanity has three-fold elements consisting of metaphysical, historical or social, and natural aspects. Furthermore, in the Japanese character and culture, he finds three "moments" of nature, spirit, and resignation that correspond to Shinto, Confucianism, and Buddhism. He also employs this tripartite analysis on iki (coquetry, spirit, and resignation) and hū-ryū (nature, unworldliness, and aestheticism), the traditional aesthetics in Japan. In contrast to Plato, Kuki regards nature as the foundation of humanity. Furthermore, the Buddhist way of love is resignation, and therefore restricts any abuse of other people and natural resources. Thus, proper love toward nature results in social and environmental ethics.

In the fourth part of this volume, "Nature and Japanese Culture," there are further investigations of the close relationship between human society and the natural environment that is illustrated by the traditional Japanese Shinto mythology. Chapter 10, Mitsuyo Toyoda's "Recollecting Local Narratives on the Land Ethic," examines Japanese indigenous narratives that offer a clue of practical ethics in the postindustrial age. To start, Toyoda examines the land ethic of Aldo Leopold (1887–1948). What Leopold calls "the land" includes "soils, waters, plants, and animals" (p. 181), and needs our moral consideration. His definition "implies the rejection of the traditional view of nature as property belonging to humans" (p. 181) found in Judeo-Christian culture. Unlike the Christian Bible, ancient Japanese mythology does not allow human beings sovereignty over the power of nature. Even a god has to struggle to control a flood as described in Susanoo's fighting story against the serpent, the Hii-Kawa River. Although these narratives were neglected as superstition during the course of industrialization of Japan, the Great East Japan Earthquake of 2011 reminded us that the shrines of Susanoo demarcate places safe from tsunamis because of the field research of Toshio Kuwako, the author of the final chapter of this volume, and his colleagues. Toyoda, as well as Kuwako, addresses several attempts in civil engineering that utilize our predecessors' message as a vision for a new examination of Japanese environmental philosophy.

In chapter 11, "The Crucial Role of Culture in Japanese Environmental Philosophy,"

author Midori Kagawa-Fox begins with a historical review of Japanese philosophy. As well known in Japan, translating and introducing of Western philosophy was the work of Amane Nishi (1829-1897). After Nishi and his followers, Yukichi Fukuzawa (1835-1901) and Chōmin Nakae (1847-1901), Japanese philosophy was fully developed through the thought of Kitarō Nishida (1870–1945) and Tetsurō Watsuji in the twentieth century. According to Kagawa-Fox, these prominent scholars "developed their teachings and theories within a Japanese social construct" (p. 202) and she believes "that the relationship between culture and social values is vital for environmental well-being" (p. 203). From the concepts of rinri (ethics) and kami (spiritual deities), an ethical relationship with others and the environment are considered next. The concept of rinri has two characteristics: it "has influenced social development within Japan" (p. 203) and "shapes the disciplinary code within society" (p. 204). Therefore Japanese people regard themselves as individual members of society, and that society is extended to the natural environment. In her discussion of the reverence of kami, she notes that "it is now more of a cultural conviction than a religious one" (p. 206). However, this national belief still works to preserve nature because it is said that the location of myriad kami is not only among the people but also among the nature that surrounding us.

Chapter 12, "Kagura: Embodying Environmental Philosophy in the Japanese Performing Arts," is authored by Hiroko Goda. She explores kagura (Japanese folk dance) as a reflection of Japanese environmental philosophy from the perspective of Japanese mythology. Her anthropological research of kagura was conducted in Takachiho of Miyazaki Prefecture, and in Iwami of Shimane Prefecture. The stage of kagura is sanctified in the way of Shintoism and symbolic of the natural environment. The body movements of the kagura performers bring the audience to the mythological past, and "tacit knowing" becomes "formal knowing" as well as other nonverbal communications of Japanese arts such as tea ceremonies and judo training (p. 222). This event of the community "helps to reinforce the environmental sensibilities of the Shinto tradition within Japanese culture" (p. 223) and the author seems to believe that in kagura performance Japanese environmental philosophy is embodied, based on the foundation of Japanese mythology.

The last part of this volume, "Natural Disasters," addresses the most current topics. In Chapter 13, "Disaster Prevention as an Issue in Environmental Ethics," Takao Takahashi suggests that we live in the "co-disaster" age, when no one can avoid disaster and we therefore need to coexist with it. Nature is not an object that we fight against and disaster prevention is not only for human beings but also for nature. His standpoint refers to the old Japanese myth

that Japanese gods represent powers of nature. In contrast to the notion of God in Judeo-Christian tradition, Japanese gods are not omnipotent. This vulnerability of Japanese gods –nature– requires care from human beings through worship and disaster prevention.

Chapter 14 features Masato Ishida's "Nondualism after Fukushima? Tracing Dōgen's Teaching vis-à-vis Nuclear Disaster." According to Dōgen, the founder of Sōtō Zen Buddhism in Japan, "radioactive waste is Buddha-nature" (p. 243) because the thing itself is not intrinsically good or evil. "In Dōgen's philosophical framework, only acts in the present are purifying or nonpurifying" (p. 257) and therefore we have to act now for the environment.

Chapter 15, the final chapter of the volume, is Toshio Kuwako's "Planetary Philosophy and Social Consensus Building." Kuwako states that "we need a new model for human action directed toward the environment" (p. 272) and he calls it "planetary philosophy and planetary ethics" (p. 273) in accordance with Callicott's suggestion "Think globally and act locally" (p. 274). In this chapter, Kuwako describes his consulting project, the revitalization of towns along the Ohashi river, as a practice of his environmental philosophy and ethics. He set out the basic principles with all stakeholders in the project for minimization of conflict among them. The principles integrate "four values: flood control, ecosystem health, beauty of the landscape, and revitalization of towns" (p. 284), and become a guide to creating social consensus.

Thus, each chapter is summarized above. All contributors have attempted to conquer the anthropocentrism and coherently admire the characteristic Japanese relationship between humans and nature. In fact, this relationship was mostly broken during the process of industrialization, which created serious environmental pollution, even in Japan. Moreover, the majority of Japanese people have never read the literature mentioned in this book.

However, as addressed in the foreword of Carl B. Becker, "there are great lessons to be learned from Japan, both about traditional and sustainable values, and about their rapid erosion in the face of media imagery and so-called globalization" (p. xiv). For this reviewer, the approach of comparing the West and Japan seems rather stereotypical in some cases, which increases my concern for a kind of over-idealization of Japan. However, editor Callicott is fully conscious of "the dark side of Japanese environmental philosophy" (p. 295). This minor defect apparently testifies that mind-body dualism still holds in Western philosophy and is impacted by the nondualism of Japanese philosophy. The disappearance of the "Western self" (p. 290) and a regional distinction of the West and Japan is necessary to address not only worldwide environmental issues but also the present day nationalistic and racist policies. Thus, this great collection accomplishes the following three objectives: challenging "the legacy of Descartes"

(p. 290), clarifying the traditional Japanese culture and thought, and indicating the underlying cause of global contemporary problems.

Reviewed by Yuri Ishida
Assistant Professor, Faculty of Liberal Arts and Sciences
Osaka University of Economics and Law
Japan