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Essay

Harm and Harmony—Concepts of Nature and Environmental Practice in Japan

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Abstract: Japan is often surrounded by the myth of featuring a unique "love for nature", and its traditional culture and lifestyle as having been "in harmony with nature" before it was corrupted by modernization and Westernization. In this paper, I employ three examples to delineate images of nature in different times of Japanese history and point out the discrepancy between discourse on nature and physical engagement with nature. I argue that the environmental destruction that peaked in the Meiji period (1868–1912) is not primarily derived from a new, dualistic Euro-American understanding of nature. Rather, I demonstrate that environmental harm was already inherent in premodern Japan and was reconcilable with the respective concepts of nature. Therefore, industrialization and the adoption of Western technology solely released the potential for large-scale environmental impact.

Keywords: Japan; nature; culture; history of ideas; environment; pollution

1. Introduction

"If people ask about the heart of [the people of] Yamato, it is the blossoms of mountain cherry reflecting the rising sun" (Norinaga 1790, cited in Marcon 2017, p. 96).

This poem from 1790 by scholar Motoori Norinaga (1730–1801) about Japan, former Yamato and the "land of the rising sun" employs the image of cherry blossoms as a natural phenomenon to express his notion of Japanese cultural identity in the late eighteenth century—and their allure has not faded until today. After a two-and-a-half-year ban on foreign tourism in response to the global COVID-19 pandemic, Japan is experiencing a surge in guests in March and April 2023 to witness the floral spectacle of *hanami* ("cherry blossom viewing"). Not only can they enjoy the magical scattering of the cherry-blossom petals in parks, gardens, and forests, but also a variety of sweets and snacks with the corresponding taste, and a wide offering of decorative objects and souvenirs adorned with Japan's probably most famous symbol of nature. Whereas the aesthetic appreciation of blooming flowers is a common practice throughout the world, the centuries-old reverence for cherry blossoms in Japan is often taken as a proof of an alleged "love for nature" or "harmony with nature" in Japanese culture. Yet this notion is not limited to orientalist romanticism and enchanted tourists, but is also held by Japanese scholars and citizens themselves (cf. Brecher 2000, p. 209).

At the same time, Japan has been criticized by international mass media and global environmental groups for its role in environmental pollution and destruction worldwide (Kirby 2011, p. 10; Schreurs 2002, p. 251), with the Minamata mercury poisoning in the 1950s as one of the most infamous incidents. Even in the twenty-first century, Japanese environmental policy falls short of other industrialized nations' efforts to preserve biodiversity, reduce their waste load, and combat climate change (cf. Sakaguchi et al. 2021, p. 121; OECD 2010, p. 19). But how does the ambiguity of nature's celebration and its simultaneous mutilation arise?

Many scholars have discussed this question. On the one hand, some argue that the traditional—i.e., pre-industrial—Japanese lifestyle was in harmony with nature, and ex-

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or implicitly blame Euro-American influence and the import of the culture–nature dualism in the Meiji period (1868–1912) for environmental destruction in Japan (Hargrove 1989; Toyama 1971; Kagawa-Fox 2012; Suzuki and Jaffe 2019; Callicott 1997; Becker 2017). On the other hand, some scholars see the premodern Japanese concepts of nature and simultaneous environmental degradation as no contradiction per se, for human manipulation of nature has been prevailing and culturally approved throughout Japanese history (cf. Asquith and Kalland 2004; Brecher 2000; Bruun and Kalland 2014; Kirby 2011; Stolz 2014; J. A. Thomas 2002; Morris-Suzuki 1998; Totman 2014).

In this discussion about the relationship between humans and nature, it is often assumed that the Western, Euro-American image of nature is a dualistic one, with a conceptual divide between a superior human realm and an inferior realm of nature as the non-human (White 1967, p. 1205; Blackbourn 2004, p. 14; Wolschke-Bulmahn 2004, p. 75). This divide and devaluation of nature is said to stem both from ancient-Greek philosophy and the Judaeo-Christian cosmology (Brecher 2000, pp. 46–51; Arntzen 2004, p. 65), with God establishing the human as creation's crowning glory, with all non-human nature designed as a convenient tool to satisfy human needs (cf. National Council of the Churches of Christ in the United States of America 2021, NSVUE Gen 1:26–30).[1]

The traditional (e.g., prior to the influence or domination by Western culture) East Asian image of nature, in contrast, is described as holistic, comprising both humans and the non-human environment on an equal status—or even with a higher spiritual status for non-human phenomena (Brecher 2000, pp. 45, 48; Yamauchi 2017, p. 162; Kalmanson 2017, p. 29; Kalland 2014, pp. 246–47). Also, in this case, the concept mainly draws on religious ideas, stemming from the teachings of Buddhism, Shintoism, Confucianism, and Daoism (Kalland and Asquith 2004, p. 29; Kagawa-Fox 2017, p. 206).

This differentiation—which I can't reject *per se*—is sometimes followed, however, by the deduction that the higher ideological status of nature in East Asia would result in "harmony" between human lifestyle and the environment, whereas the low opinion of nature would bring forth a lifestyle in the West that is much more prone to harming the environment (as discussed in Kagawa-Fox 2012, p. 36; Marcon 2017, p. 305; Moon 2004, p. 228; Morris-Suzuki 1991, p. 81). While this might seem plausible in theory, the situation is more complicated in practice, as many authors have shown (Shirane 2012, p. 219; J. A. Thomas 2002, p. 188; Kalland and Asquith 2004, p. 5; Brecher 2000, p. 81).

In the case of Japan as an East Asian country that secluded itself from most of the Western world between the 1630s and 1858,[2] it is often assumed that its ambition to catch up with the industrial, scientific, and military status of Europe and the United States was accompanied by the adoption of the Western concept of nature. In accordance with this deduction, the alleged Westernization of Japan's nature concept is, therefore, blamed for the surging environmental degradation from the Meiji period (Moon 2004, p. 228; Morris-Suzuki 1998, p. 54; 1868–1912; cf. discussion in Brecher 2000, p. 93).

With this paper, however, I argue (1) that it is difficult to speak about a Japanese adoption of the Western image of nature in the Meiji period, as a range of diverse concepts and discourses about nature coexisted; and (2) that pollution and environmental damage were already emerging in pre-Meiji Japan but could only reach critical levels through the application of "modern"—i.e., Western—technology from the Meiji period.

I strive to point out the discrepancy in the discursive relation to nature in Japan and the physical interaction with the environment. I will start with an introduction to the linguistic understanding of the term "nature" in Japanese and give a brief account of the cultural role of nature in premodern Japan. Then I apply three examples from Japanese history by first presenting their contemporary discursive images of nature as well as its physical treatment to elaborate on how nature's appraisal and destruction—or, as the title phrases it, "harm and harmony"—have been coexisting. I assert that it is not the adoption of a dualistic Western view on nature that caused environmental degradation in Japan from the end of the nineteenth century, but the prioritization of interests—often social, political,

and economic—other than the physical environment, accompanied by the adoption of the more disruptive Western technology.

2. "Nature" in the Japanese Language

Although "nature" might seem a trivial word of daily conversation, it comprises a multilayered set of meanings and cultural implications and has even been called "perhaps the most complex word in the language" (Williams 2011, p. 184). The material environment, the abstract concept of all organic and inorganic matter, natural phenomena and their laws, the character of people, the essence and quality of things, the creation, a god-like life force—these are just a few examples of possible understandings of "nature". Like in many other European languages, the English "nature" is derived from the Latin noun *natura*, which already contains the divers above-mentioned meanings, and, in turn, stems from *natus*, the past participle of the verb *nasci*, meaning "to be born, to come into being" (Kalland and Asquith 2004, p. 10). Therefore, it is an almost futile endeavour to expect a semantically identical term in any foreign language, especially outside of the European cultural sphere that coined these understandings.

And, in fact, instead of one all-encompassing notion, the Japanese language offers a multitude of terms specifying and further elaborating on the diverse meanings entailed in "nature". Literature scholar Sonja Arntzen (2004, p. 66) even states that "there is no 'Nature' in the traditional [Japanese] world view; there are only immanent natural phenomena in their fragmentary specificity that are woven into the fabric of human experience without losing that specificity [. . .]". In accordance with this, expressions such as *sansui* ("mountains and waters"), *tenchi* ("heaven and earth"), *mono* ("things"), *tennen* ("something that is so given by heaven"), *shinrabanshō* ("vegetation growing in ten thousand forms"), *banbutsu* ("ten thousand things"), *tenchibanbutsu* ("ten thousand things under heaven and earth") or *fūdo* ("wind and soil"; climate, geographical and biological environment of a region) represent primarily the material aspects of nature (cf. Brecher 2000, p. 70; Kalland and Asquith 2004, p. 9; Marcon 2017, p. 17, 20–21; Mori 2002, p. 117; J. A. Thomas 2002, p. 7). In contrast, *sei* ("character, quality") describes the inner constitution of things and people (Kalland and Asquith 2004, p. 9), and *zōka* ("creating change") embodies the force of creation and Daoist concept of nature's power to generate life (Brecher 2000, p. 70; Marcon 2017, p. 21).

While most of the listed terms were mainly deployed in premodern Japan, the word commonly used today to express the English term "nature" is *shizen* 自然. (Brecher 2000, pp. 69–70). It is written with the characters for "self" *ji/shi* 自 and "so, in that way" *zen* 然, literally "something that is so by itself", and refers to the abstract concept of nature (Kalland and Asquith 2004, p. 9). Although *shizen* was derived from the Chinese *ziran* about 1500 years ago in the reading of *onozukara* ("what is so of itself"; Tellenbach and Kimura 1989, pp. 153–54) and in a Buddhist context as *jinen*, this term appeared first as a translation of the Dutch *natuur* in a Dutch–Japanese dictionary in 1796 (Mori 2002, pp. 117, 123; J. A. Thomas 2002, p. 7). *Ziran* and the premodern *shizen* comprised an understanding of nature as the phenomenal universe, with both humanity and its physical environment as equal and inseparable parts of it, resulting in their conceptual unity (cf. Jackson 2013, p. 41). The new use of *shizen* as a translation from European languages, in contrast, refers to a conceptual divide between nature and culture, with humanity as the subject and nature as the object of contemplation (Kalmanson 2017, p. 29). It came into popular usage only from the Meiji period (1868–1912), when increased contact with Western science, philosophy and economics lead to new conceptualizations based on the notion of an objectified, material nature (Brecher 2000, p. 58; J. A. Thomas 2002, p. 171). A tangible example is author and intellectual Mori Ōgai's usage of *shizen* for the phenomena that are object of the natural sciences, which had previously been translated as *tennen*, *tenchi*, or *banbutsu* (Yanabu 1989, p. 138). Due to the difficulty of their semantic distinction, the nuances in the meaning of *shizen* first coexisted, and eventually the "Western" meaning gained the upper hand (cf. Yanabu 1989, pp. 127–48). In a similar way, *kankyō*, as translation of the

English "environment" and the German *Umgebung*, was established in the early twentieth century (Soda 2003, p. 66).

With the linguistic transition to *shizen* and the semantic implications occurring in the Meiji period, one could assume that the environmental degradation emerging in this era in Japan resulted from an altered relationship with nature, elicited by a new Western-style, objectified concept of it (Moon 2004, p. 228; Morris-Suzuki 1998, p. 54; as discussed in Brecher 2000, p. 16). I will demonstrate based on three examples—two pre-Meiji, one during Meiji period—of discourse and environmental history, however, that this is a fallacy, and that even before the socio-political transformations of the Meiji period, environmental degradation and a notion of nature as an exploitable resource were emerging in Japan.

3. Examples from Different Periods of Japanese History

3.1. Example I: Nature Reverence and Manipulation in Premodern Agriculture

In the agricultural realm of ancient Japan (i.e., until the end of the twelfth century), the discourse on nature was mainly shaped by religion and folklore. Shintoism, an animistic believe which developed from Japan's early indigenous religions in the Yayoi period (300 BCE–300 CE; Kagawa-Fox 2017, pp. 206, 208), inscribes the presence of *kami* (godlike spirits) into unique rocks, large trees, and other natural objects or phenomena that, hence, demand reverence (Parkes 2017, p. 67). Flowers and plants were attributed talismanic functions against disease and evil, or for good fortune, and trees or branches served to invite the presence of *kami* (Matsuoka 2020, p. 30; Shirane 2012, p. 21). But nature was not only sacred and benign: the wilderness of mountains and forests outside of the rural *satoyama* villages was considered the realm of wild animals, spirits, and mythical creatures such as *kappa* (water goblins), *tengu* (bird-human-monkey chimeras), *kitsune* (fox spirits), and *tanuki* (evil raccoon dogs; Marcon 2017, pp. 3–4). *Torii* (Shinto gates) defined the border between the human world and supernatural wilderness (see Figure 1), and worship at Shinto shrines meant to pacify the malevolent creatures of the forest and win the favour of benevolent *kami* (Marcon 2017, pp. 3–4). With the progressive taming of nature, its image shifted to a more positive view from the middle of the Heian period (794–1185), and many previously violent spirits turned into guardian gods of agriculture in Shintoism (Shirane 2012, p. 14).

Figure 1. A *torii* equipped with a fence to separate the human realm from mountains and forests in Kamikatsu, Tokushima Prefecture. Photo by Regina M. Bichler.

After the mid sixth century, Buddhism, which had been introduced from China, added new elements to the relationship with nature and the environment (Matsuoka 2020, p. 218; Kagawa-Fox 2012, p. 28). The Buddhist view on life as suffering makes the request for universal compassion extend also to animals and plants, which were regarded capable of attaining Buddhahood by the Japanese Tendai and Shingon Buddhist schools (Brecher 2000, p. 63; Sørensen 2013, p. 98). Similar to Shintoism, even inanimate nature such as mountains was considered sacred and turned into destinations of Buddhist pilgrimage (Shirane 2012, p. 144). Furthermore, the killing of animals as sentient beings was deemed a sin, which lead to the taboo and prohibition of meat eating—at least for some species—in 675 (Shirane 2012, pp. 182–83; Sørensen 2013, p. 87). Nevertheless, Buddhism did not propagate a "love for nature" in the form of non-intervention or nature conservation (Kalland 2014, p. 247). As it teaches the escape from the transitory existence in an illusionary material world through enlightenment, Buddhism's concern for the physical environment was mainly utilitarian. Sparing the life of sentient beings prevented its believers from accumulating negative karma, and sustainable use of resources helped to properly manage monastic assets (Sørensen 2013, pp. 85–87, 103–4).

Yet the religious ideals about nature were not necessarily followed in agriculture and forestry—or could not practically be followed, respectively. The reclamation of farmland through logging and its cultivation provided a livelihood for rural communities, but the spatial closeness with and dependency on nature made agrarian communities vulnerable to its forces, such as floods and vermin (cf. Sørensen 2013, p. 89). Therefore, despite the Buddhist ban on killing animals, birds and insects that damaged the harvest were considered as pests and culled by farmers (Shirane 2012, p. 120). Yet farmers found a practical resolution to the animal-killing dilemma in posthumously venerating the resentful spirits of the beings that had to give way to the extension of the human-dominated domain at shrines, or by appeasing their souls through Buddhistic *kuyō* rituals (i.e., offerings to the spirits of the deceased; cf. (Shirane 2012, p. 120; Kagawa-Fox 2012, p. 31). Similarly, although large trees were regarded as the seat of the *kami* in Shintoism and were theoretically able to attain Buddhahood, logging for timber and firewood demanded in the construction of Buddhist temples and Shinto shrines consumed enormous areas of woodlands, leading to environmental deterioration such as soil erosion and flooding in the remaining fallow landscapes (Totman 2014, pp. 86–87).

The acceptance of collateral damage to the environment in the wake of agriculture and forestry is certainly not specific to Japan, but a common issue in farming throughout the world. The point of interest here is, however, that reverence of a divine nature would make one expect a policy of active environmental protection, or at least non-interference with the environment. Instead, it did not impose, or hardly imposed, specific limits to the kind and extent of harm done to nature but asked for atonement in the form of religious rituals instead. In contrast, in the Christian religious sphere, for example, where the physical environment is explicitly created for human prospering and, therefore, has a lower status than humans (cf. White 1967, p. 1205), no religious practices of "compensation" for nature are demanded. Consequently, the discursive concept of a "sacred" nature did shape religious practices towards nature but did not exert significant influence on ecological behaviour.

Several possible reasons can be attributed to this observation. First, while we might understand "nature" by default in terms of "environment" from a contemporary and Western-language perspective, this is not the case for both other periods in history and the Japanese language, as Section 2 has discussed. The linguistic divide of nature into an abstract concept and its phenomenal elements suggests that there was not necessarily a practical connection between these two ideas.

Second, even if there was a direct connection, such as in the case of the Buddhist ban on meat eating, this does not mean that such prescriptions were being followed. The load of bad karma from the killing of an animal was probably a neglectable burden in comparison to starving, especially as karmic imbalances could be compensated for by religious

rituals and good deeds, and the wrath of angry spirits could be appeased post-mortem. Furthermore, it has been demonstrated in many a study that humans do not necessarily act according to their values and social norms (reviewed, e.g., in Turaga et al. 2010)—a behavioural pattern that probably was not much different in ancient times.

Another factor is that discourse on nature and practices engaging with the environment occurred on different societal levels—clergy and farmers, respectively. Although both Shinto shrines and Buddhist monasteries often possessed their own land for farming to provide for their staff (Sørensen 2013, pp. 86–87), the high priest or abbot who composed treatises about the human–nature relation was most certainly not the one to till the land and perform the "dirty work" that gave rise to conflicts of interest between religious ideals about nature and food security.

In summary, the relationship with nature in ancient agricultural Japan emphasized the human dependence on nature in both good and bad terms. Religious practices sought to reconcile the ambiguity of revering natural phenomena and simultaneously harming them to meet human needs. This harm, however, should not be understood as awareness for—or knowledge about—ecological ramifications when, e.g., decimating the local population of a pest; it was rather an awareness of the transgression of rules prescribed by Shintoism and Buddhism. Yet this transgression was made up for by religious rituals, and, therefore, the "harmony" with nature was restored.

3.2. Example II: Neo-Confucian Resource Exploitation in the Edo Period

The Edo period (1604–1858), which is also classified as "early modern", secured a long-term peace after centuries of constant war and, thus, allowed the flourishing of art, literature, and trade. Nature and its representations had been playing a vital role in aristocratic art and literature since the Heian period (794–1185), and this tradition continued throughout the Edo period, proliferating into the social stratum of samurai and wealthy merchants (Matsuoka 2020, p. 297; R. K. Thomas 2008, pp. xvi–xvii; Shirane 2012, pp. 209–10). Although poetry was centred around topics of nature, nature's literary role was mainly the indirect expression of human emotions in a highly stylized symbolic code of associations which were usually interconnected with a specific season (Arntzen 2004, pp. 54–55). Konishi (1991, pp. 13–14) even postulates that there was no conceptual barrier between humans and nature in ancient Japanese literature that would allow its objective description—which resonates with the religious concepts of 3.1, Example I.

Yet this was not the only engagement with nature in the Edo period. A precursor of today's natural sciences emerged in the form of medical botany (jap. *honzōgaku*), a study devoted to the pharmacological properties of minerals, plants, and animals for medical purposes (Shirane 2012, p. 110; Nakamura et al. 2014, p. 239). Due to its Chinese origins, the view on nature in medical botany and its species-classification system was deeply rooted in Neo-Confucian philosophy and the Confucian concept of nature as a metaphor for the social order that functions according to moral principles (Roetz 2013, p. 30). Medical botany became a popular fashion, not only in the form of professionals and amateurs collecting specimens, but also as a spectacle for the common public who craved to see or possess exotic plants and animals imported by Dutch and Chinese merchants (Morris-Suzuki 1991, pp. 90–91; Winkel 2012, p. 13; Marcon 2017, p. 163). In teahouses and public spaces, facilities similar to botanical and zoological gardens were established (Marcon 2017, p. 174). From a mystical, potentially dangerous realm inhabited by gods and spirits, nature turned into an intellectual and economical commodity with monetized value, and its experience into a consumer good (J. A. Thomas 2002, p. 55; cf. Marcon 2017, p. 178). Even for the ruling elite, the physical environment was merely an exploitable resource, the reason why *honzōgaku* studies had been financed and promoted in the first place (Marcon 2017, pp. 252, 277; Morris-Suzuki 1991, p. 91). This coincided with the emergence of the idea of *kaibutsu* ("opening of things"), a term coined by botanist and philosopher Kaibara Ekiken (1630–1714) that—like *honzōgaku*—was based on Neo-Confucian values, propagating the study of and active engagement with the physical environment for the efficient utilization

of natural resources (Morris-Suzuki 1998, pp. 41, 45). *Kaibutsu* evolved into an important concept due to the increasing outflow of money from the countryside into the newly established capital Edo (present-day Tokyo) and flourishing trade hub Osaka, which had developed into cultural and economic centres (Morris-Suzuki 1998, pp. 45–46). This and the lack of revenue from war conquests during the peace of the Edo period caused financial shortages in the feudal domains and led to the search for ways to expand agricultural production, e.g., by the manipulation and reconstruction of the natural landscape (Brown 2013, p. 97).

Although the praise of idealized nature in the arts found some practical expressions in gardening and landscape architecture according to literary descriptions (Shirane 2012, p. 214), the main environmental developments of the Edo period rather mirrored *honzōgaku* and *kaibutsu* practices. With the population almost doubling in the seventeenth century (Totman 2014, p. 152), agricultural intensification and expansion was unavoidable. Yet logging was not only spurred by agricultural-land reclamation (Seta 2000, pp. 5–33), but also by a construction boom and increasing demand of firewood for metallurgy, resulting in unprecedented deforestation. The ramifications of deforestation, namely, soil erosion, flooding, and sedimentation, among others, destroyed agricultural systems and threatened the livelihoods as well as the existence of whole villages, and, consequently, also the food supply of the elites—not to mention the damage to the biotic community. Therefore, laws were adopted in the second half of the Edo period that limited logging and established areas of forest conservation as a way of long-term resource management (jap. *chisan chisui*, "management of mountains and waters"; Totman 2014, pp. 175–78).

Although this turn is sometimes praised as exemplary nature conservation (Morris-Suzuki 1991, p. 95; Yasuda 1990, pp. 2–4), Conrad Totman (2014, p. 143) argues, in his environmental history of Japan, that it was, rather, an unavoidable adaption to ecological limits than a conservationist attitude. Thepurpose of these measures was not the preservation of the forest *per se*, but to give it sufficient time and possibility to recover for logging anew. Furthermore, reforestation was not undertaken in such a way as to restore the original ecological conditions of the forest, but the planted trees were adapted to the needs and interests of different social and economic groups (Totman 2014, p. 178).

Yet environmental damage was not restricted to trees. Mining for gold, silver, copper, sulphur, and coal—resources critical for trade and technological development—had commenced during the Edo period and had demonstrated the environmental as well as social consequences of the increasing exploitation of natural resources (Totman 2014, p. 172). Chemicals for ore extraction were discharged into rivers, where they poisoned fish and crops, resulting in environmental damage, threats to rural livelihoods, and human health issues. The first recorded chemical-pollution incident occurred as early as 1640 at the Akazawa copper mine in Hitachi, Ibaraki prefecture, where mining activity was terminated due to protests of local farmers (Colligan-Taylor 1990, pp. 69–70). Yet in many other cases to follow, the authorities took the side of the mine operators to ensure the supply of resources for trade and production, providing financial compensation to silence protests (Totman 2014, pp. 172–73).

As the discursive developments in the Edo period (1605–1868) demonstrate, even before the Meiji period and the opening to Western technology and ideas, objectified understandings of nature and the physical environment emerged in Japan. *Kaibutsu*, as the imperative to actively utilize the archipelago's natural resources, is strongly reminiscent of the Christian notion of nature as existing purely for human exploitation, even though Christian faith was prohibited and persecuted—therefore, it is very unlikely that there is a direct connection. Rather, the dominance of Neo-Confucianist cosmology and ethics, prescribing the utilization of all available resources for the efficient fulfilment of duties, paired with the economic incentives resulting from the socio-political conditions of the Edo period can be taken as the motivation for this train of thought. A similar reasoning applies to *honzōgaku*: although no historical connections can be drawn, its gradual turn away from Neo-Confucian principles to proto-scientific practices appears comparable to

developments within the Scientific Revolution beginning in sixteenth-century Europe. Yet whereas the occidental concept of nature is already defined as dualistic and objectifying before the Scientific Revolution and the subsequent Age of Enlightenment, in Japan, the dissection, analysis, and commodification of natural elements and phenomena could be said to constitute a paradigm shift from the conceptual unity and equality of humanity and nature to the establishment of nature as a mere object of human interest, profit, and manipulation. In the view of Neo-Confucianism, although humans and nature were still proclaimed to be united and inseparable, the practical role attributed to nature lay in its benefit and profit for the human realm, such as the pharmaceutic properties of plants collected, the increased harvest derived from intensified agriculture, the newly built temples and houses made of high-quality wood, and the goods that could be produced from the ores extracted in mining. Thus, the human hand only helped nature and the physical environment fulfil its designated role.

On the contrary, Brecher (2000, p. 15) sees Neo-Confucianism's focus on duty, control, and management instead of profitmaking as beneficial to conservation efforts during the Edo period. However, considering that wood scarcity had already commenced in the early seventeenth century (Totman 2014, p. 174), I find Totman's argument more convincing that it was not ideological restrictions, but biological limits to the exploitation of natural resources, which elicited forest conservation programs. Yet even if there are correlations between the discourse about nature and practices of engagement with the physical environment, causal connections should not be drawn hastily. The socio-political and economic developments in the Edo period were strongly pushing for an intensified resource use, independent of how nature might be discussed in theory. Importantly, these tendencies commenced even before the emergence of the *kaibutsu* concept and the popularization of medical botany—presenting the change in the discourse about the relationship of human and nature in a rather apologetic light (cf. Morris-Suzuki 1991, p. 93).

Although the eventual backlash to the extractive engagement with nature and the environment and the consequential need for its active preservation could be regarded as an important lesson for society in the Edo period, the worst was yet to come.

3.3. Example III: Meiji-Period Industrialization and the Diversification of Images of Nature

After being forced by the United States to open up for trade relations in 1853, Japan's shift from an agrarian, feudal society to one of the world's leading industrial nations took place at the end of the nineteenth century within merely 50 years (cf. Saaler 2005, p. 74). In this era, Japanese and Western knowledge about nature converged into modern natural sciences (Marcon 2017, p. 302), and the aforementioned shizen was introduced as a translation of European language terms for "nature", with its scope of use gradually widening (see Section 2). In contrast to previous terms for nature, it implied the dichotomic separation of nature and culture (jap. bunka or bunmei). Bunmei kaika ("enlightenment and civilization"), a Meiji-period (1868–1912) catchphrase referring to the absorption of Euro-American thinking, technology, and culture, promised economic, industrial, and military advancement according to the Western model (Totman 2014, p. 151). It was advocated, among others, by the Meirokusha, an influential group of intellectuals around the political reformers Mori Arinori (1847–1889) and Fukuzawa Yukichi (1835–1901) (Swale 2009, pp. 98–122; Huish 1972, pp. 208–9).

At the same time, there were also voices opposing Japan's intellectual "Westernization" arguing that Japanese philosophical traditions should be retained while adopting only Western knowledge and technology. This notion was expressed through scholar and politician Sakuma Shōzan's (1811–1864) "tōyō no dōtoku, seiyō no geijutsu" ("Eastern morality, Western technology") and journalist and geographer Shiga Shigetaka's (1863–1927) kokusui shugi ("maintenance of Japan's cultural identity"), for example (J. A. Thomas 2002, p. 57; Gavin 2000, p. 220). Others even rejected industrialization including its socio-ecological ramifications as part of their critique on Japan's "Westernization" and called for a return to traditional values and philosophies (Brecher 2000, p. 5). The well-known folk-

lorist Yanagita Kunio (1875–1962), for example, argued that deforestation, the relocation of villages and other forceful alterations of the landscape would deprive the Japanese people of their communal identity and religious foundation: "[. . .] our worship of the gods originates not in some sacred body, or shrines, but in the land itself and the forest growing densely on the land" (cited in Marcon 2017, p. 299). Similarly, Shiga's Nihon Fūkeiron (1894) suggested that the Japanese national character was shaped by Japan's climate, landscape, and geography, and that the physical environment must not only be treated as an economic but also as a cultural resource demanding preservation (Gavin 2000, pp. 225–26). The popularity of their writings reflects the public resonance with their ideas. Yet aesthetic and cultural appreciation of nature is not equal to its environmental treatment: whereas the agreement on the beauty of the Japanese landscape was widespread, some saw nature's riches waiting for their utilization (Marcon 2017, p. 289), and others argued that due to Japan's scarcity in natural resources, not only intensive resource extraction but also geographical expansion were necessary to cater national needs—later justifying Japan's imperialism in the dawn of World War II (Befu 2001, p. 17; J. A. Thomas 2002, p. 197).

In political decisions, the latter views prevailed, and to keep up with the Western nations, rapid industrialization and the utilization of all available resources was pursued. With a further surge in population, urbanization, and the high demand for natural resources, however, industrialization was soon followed by bunmei byō ("diseases of civilization"; Pyle 1975, p. 348). Cases of kōgai ("public harm"), referring to environmental pollution that affects human health, had already emerged from mining in the Edo period, but were becoming endemic during Japan's industrial revolution, with the the Ashio copper mine disaster of 1873 the most famous incident (Colligan-Taylor 1990, pp. 69–70; Kagawa-Fox 2017, pp. 200–1). The new industrial technologies imported from the West had opened up unprecedented possibilities for resource extraction. While mining in previous centuries, for example, had literally only scratched the surface and, therefore, caused significantly smaller amounts of toxic waste and pollution, new deep-mining technology allowed the underground extraction of ores, accompanied by extensive chemical processes that discharged pollutants into air and water on a totally different scale (Totman 2014, pp. 171–72). Moreover, due to the introduction of dynamite and mining machines, the productivity of mining increased significantly, but so did its adverse effects for miners' health (Totman 2014, pp. 222–23). Even the demand for wood, which had already been at critical levels for centuries, surpassed all previous thresholds as more and more fires had to be fed for industrial processes. This, unsurprisingly, exacerbated the social and environmental problems that had already arisen during the Edo period. Yet worsening environmental conditions such as air and water pollution and their victims were either ignored or viewed as inevitable side effects of successful economic development (Brecher 2000, p. 16). This situation continued more or less unchanged until the postwar years of economic recovery, as the government held on to the "belief that individuals would recognize the advantages of industrialization and tolerate its inconveniences for the sake of the greater good" (Brecher 2000, p. 195).

The focus on growth and progress was not limited to mining, but similar developments—an increase in output and efficiency through the import of Western technology—were also pursued in agriculture, fishery, manufacturing, and forestry, but all these sectors suffered, at the same time, from industrial pollution (Totman 2014, pp. 220–35). Forestry further experienced a catastrophic escalation when the forest management system was reformed to imitate Western standards, and even extended efforts for reforestation only proved effective when downstream pollution and damage was curtailed. Environmental ramifications emerging in the Edo period multiplied under the new techno-economical regime.

Tracing the images of nature from the end of the Edo period throughout the Meiji period, one cannot speak of a simple adoption of the dualistic, objectified Western nature concept—especially not one that appeared on the Japanese stage like a deus ex machina. Instead, the Edo period had already born two concepts—honzōgaku and kaibutsu—from Neo-Confucianism that were comparable with the Euro-American one in its view on na-

ture as a means to satisfy human interests and needs. On the one hand, this could either increase the openness to engagement with the foreign-but-similar view on nature, but also make its adoption unnecessary and lead to its rejection, like in the case of Sakuma, on the other hand. Furthermore, with the connection of nature and the Japanese nation such as in Shiga's and Yanagita's writing, and other theories sharing their appraisal of nature without their call to protect it, a diversity of competing ideas about nature existed in nineteenth- and early-twentieth-century Japan (J. A. Thomas 2002, pp. 29–30).

Yet the symbiotic harmony between the Japanese lifestyle and nature before the perceived intrusion of Western capitalist thinking and industrialization that many scholars suggested was an invented tradition (J. A. Thomas 2002, p. 181), ignoring and denying early deforestation, soil impoverishment through intensive agriculture, and pollution incidents that had emerged long before the Meiji period. As sketched above, Japan's pre-industrial relationship with nature was ambiguous rather than harmonious, and more oriented toward practical issues and priorities such as the securing of one's livelihood or the satisfaction of needs and desires than toward religious and philosophical concepts of nature.

Among the different views on nature in the intellectual discourse, the—both Western-style and Neo-Confucian—idea of utilizing nature to pursue Japan's self-prescribed development goals was especially beneficial to industry and government, two sectors that were closely connected in the Meiji period. With an already minimal concern for human damage, as the endemic mine pollution incidents demonstrated, their concern for the non-human environment was virtually non-existent.

Therefore, I argue that it was not the Euro-American concept of the human–nature dualism that caused the unprecedented environmental degradation in the Meiji period, but rather the prioritization of the goal of catching up with the Western industrialized nations under the slogan fukoku kyōhei ("enriching the nation, strengthening the army"; Morris-Suzuki 1991, p. 93). In this process, imported "advanced" knowledge and technology were employed for a more efficient resource extraction—but also engendered a more efficient environmental destruction. As the utilization of natural resources for human benefit were supported in Neo-Confucianist philosophy, invoking these values allowed the government to reconcile Western technology with Eastern philosophy.

Historian Tessa Morris-Suzuki (1998, pp. 53–54) even goes as far as to state that the indifference of the Meiji government to the environmental effects of industrialization resulted from adherence to the Neo-Confucian notion of the unity of humans and nature. Humanity as an inseparable part of nature made the idea of an environment free of human manipulation unimaginable—and undesirable. Yet whereas the correlation between environmental degradation and Neo-Confucian ideas is obvious, it is questionable whether it is really a causal connection—as nature exploitation, e.g., in the form of extensive logging, can already be observed centuries before the emergence of Neo-Confucianism (cf. Section 3.1).

4. Conclusions

In this paper, I aimed to debunk the myth that the Japanese lifestyle was imbued by "love for nature" and "in harmony" with nature, derived from a holistic human–nature concept, before the intrusion of the Western dualistic-nature concept led to the environmental degradation of the archipelago. I demonstrated that the severe environmental damage occurring in modern Japan, i.e., from the middle of the nineteenth century, cannot be attributed to the adoption of the Euro-American notion of nature, for it was only one of many competing notions during the Meiji period (1868–1912), with similar ideas reflected in established Neo-Confucian ideas such as honzōgaku and kaibutsu. Instead, the import of Western technology to propel industrialization through maximum resource extraction aggravated environmental tendencies that had already spawned during Japan's seclusion in the Edo period (1604–1868), if not earlier. I gave a short introduction to the semantics and linguistics of "nature" in Japanese, and employed three examples from Japanese history, both premodern and early modern, to corroborate these findings.

The Japanese language offers a wide variety of notions, expressing primarily physical phenomena, subsumed under "nature", which were mainly in use before the prevalence of shizen—the translation of the European term that was introduced during the end of the eighteenth century. Although the term was originally imported from Chinese, meaning "something that is so by itself", it eventually came to refer to an understanding corresponding to its English equivalent.

In ancient Japan (until the twelfth century), agricultural life was influenced by folklore and religion; yet agricultural interests such as defending one's crops against pests conflicted with the Shintoist notion of sacred nature and the Buddhist condemnation of killing sentient beings such as animals. This conflict of discourse and practice was resolved by performing religious rituals to appease the spirits of the creatures that had experienced violence through humans.

In the Edo period (1604–1868), the traditional literary praise of nature stemming from the aristocratic realm made its way into the samurai, townspeople, and merchant class, and was supplemented by new concepts. Neo-Confucianist cosmology served as the basis of honzōgaku, a proto-scientific study of natural phenomena, which spawned interest in the interaction with the physical environment, but also enabled its commodification. Kaibutsu, on the other hand, also buttressed by Neo-Confucianist ideas, promoted the utilization of nature's resources to secure the provision for the rapidly growing population and compensate for economic disadvantages of the provinces. Yet agricultural expansion and the construction boom took its toll, forcing the populace to adapt to ecological boundaries such as the regeneration time of forests. Furthermore, first incidents of mine pollution already foreshadowed the socio-ecological destruction that was still to come.

Political, social, and economic disruptions in the Meiji period (1868–1912) facilitated a re-evaluation and diversification of the relation between humans—or, more precisely, the Japanese nation—and nature. While industrialization was promoted by both industry and the state, factions supporting the occidental duality between human and nature, calling for the retention of "traditional" Neo-Confucian Japanese values or rejecting the modernization and "Westernization" of Japan altogether, competed in the intellectual discourse. Although the latter group saw environmental protection as part of preserving the Japanese identity, in governmental and industrial practice, the goal of developing into a potent international player on par with Western states was prioritized. Newly imported technology for resource extraction and industrial processing caused unprecedented environmental pollution, simultaneously threatening the biotic community, human health, and local livelihoods, but the collateral socio-ecological damage was declared a necessary evil for the future prospering of the nation.

Although the discursive and environmental developments described here are specific for the Japanese case, many of the observations made in Japanese history can easily be transferred to other times and places. The appreciation of an abstract concept of nature is an experience unrelated to the physical interaction with the environment (Totman 1989, p. 179), and, therefore, environmental behaviour cannot be deduced from the attitude towards nature. Therefore, "love for nature" does not necessarily mean care for the environment, as the three examples have demonstrated—and, e.g., the waste left behind in the mountains by "nature-loving" hikers regularly does. The lack of knowledge about ecological connections could be a reasonable explanation for many environmentally harmful practices, especially when looking at premodern times. When the first chemicals from mining were discharged into rivers, the damage inflicted to the human and non-human environment were most probably not known and unforeseeable. Yet even after the interrelations became evident in the Edo period, the harm to local ecology, health, and economy were still viewed as less important than the perceived benefit for the nation—a view that was propagated not only in the Meiji period, but also during the economic boom after World War II, with ecological ramifications similar to, if not worse than, those in the Meiji period. More than values and theoretical considerations on nature, practical aspects prevailed, as illustrated in Totman's (2014) comprehensive description of the socio-political

and socio-economic developments that led to the presented environmental outcomes in the respective era.

However, this article does not suggest that there was or is no sincere concern for nature as environment in Japan. Already during the Meiji period, engaged politicians warned about the dramatic effects of environmental pollution on human health (Stolz 2014, p. 5). In the twentieth century, the renowned primatologist Imanishi Kinji (1902–1992) and the Oscar-winning director Miyazaki Hayao (*1941) critically address the modern human–nature relationship and suggest a new environmental ethic in their works (cf. Berque 2017, p. 23; Odin 2017, p. 138). Today, Buddhist schools are increasingly propagating active environmental protection, and Japanese branches of NGOs such as Greenpeace and environmental movements such as Fridays for Future fight against environmental degradation on both the domestic and international scales. Of course, pre-industrial deforestation, environmental degradation and appreciation of secondary nature can easily be found in other cultures as well, e.g., in Germany (Moranda 2006, p. 105; Stehr 1994, p. 218). However, the persistent claim of the innate "love for nature" in Japanese culture, character, and identity puts it under special scrutiny how this "love" and "harmony" could coexist with environmental harm. Discursively, one could even claim that the Japanese civilization and nature were "in harmony", as their impact on the environment were backed or in some way reconciled with the prevalent images of nature in different times of history, as the three examples showed. Practically, however, interests other than the preservation of the actual landscape that was valued so much in the arts and literature—such as economic prosperity, which was promised by kaibutsu, honzōgaku, and the introduction of modern technology from the West—were prioritized and pursued. The resulting pollution and environmental degradation emerged as byproducts of these interests and were, therefore, considered as unavoidable—shō ga nai ("Nothing can be done about it") in Japanese.

Thus, the often-cited Japanese "love for nature" is a very euphemistic and simplified expression for this relationship and the historical diversity of nature concepts. More pointedly, the gap in the veneration of abstract nature and the destruction of physical nature has been described by Kalland and Asquith (2004, p. 15) as a "love affair from adistance". Yet even if this distance is bridged by strolling among the neatly planted rows of cherry blossoms in April, one will find that their most-valued quality is not their soft white and pink contrasting the bright-blue spring sky, but the scattering of their petals in the wind, reminding us of the transience of all things—even nature.

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Notes

1 This view on nature is, of course, not the only one existing in the Euro-American culture until the early twentieth century, but as it is the concept addressed in the myth I want to debunk, I will not discuss other Western nature images in this essay.

2 Apart from Asian trade partners, only the protestant Netherlands were permitted, under strict regulations, to maintain purely secular trade relations with Japan as Christianity, in particular Catholicism, was increasingly perceived as a threat to social stability (Sugimoto and Swain 1978, pp. 160–61).

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