

CHAPTER 9

NATURE UNBOUND:
THE NATURAL SCIENCES AND PHILOSOPHY

When a wicked person is on his deathbed, the populace of hell buzzes with expectation that a new member of their company will soon be born. Should the dying regain strength and go on living, there is much wailing that the expected birth of a denizen of hell may miscarry and he or she might be lost. When finally death comes and the earthly family is weeping with grief, in hell there is rejoicing at another safe birth.⁹¹

—Minakata Kumagusu

The disaster that ensued from the Tōhoku Earthquake on 11 March 2011 greatly changed Japanese views of the world and of humanity. The people of the Tōhoku region of course experienced the most powerful impact of both the tremors and the tidal waves, but even in the city of Tokyo 200–300 miles away, the strong shaking, power failures, and stoppages of public transport brought home to everyone the peril and fear brought by a major earthquake. The accident at the Fukushima Daiichi Nuclear Power Plant, the destruction of high protective seawalls, and other catastrophic results of natural events of unforeseen scale clearly demonstrated the nature of the “risk society” built on science and technology people had come to rely upon in their daily lives.

When we think what life was like before the advent of modern times, it might seem unimaginably inconvenient in comparison with today. No telephones (and definitely no mobile phones), electricity, gas, or water supply utilities, no gasoline-fueled automobiles—we probably can hardly imagine what life was like in those days. Even then, of course, technologies and crafts were surprisingly advanced and traditional agricultural technology, too, was quite well developed. All of it, however, was within the scope of what could be moved basically by human strength, skill, and wits, and the principles that made things work were more or less clear to the ordinary observer. Technology involved

91 Minakata Kumagusu letter to Iwata Jun'ichi, 20 August 1931; see Minakata 1991, vol. 3, p. 335.

the lever, the wheel, the gear, and other tools that almost anyone could master and utilize with some practice.

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With the advent of the modern age, which in the case of Japan arrived very rapidly in the latter part of the nineteenth century following the establishment of the Meiji state (1868), the influence of Western civilization and technology completely transformed daily life. Streetlights, first the dim gaslights and then glaring electric lights, lit up the night in the cities. Steam-belching locomotives sped over tracks laid between major cities and telephones lines were

installed, allowing people to travel and communicate with each other over vast distances. People were astounded by technologies that must have seemed like some kind of magic. Machines and devices used technologies that ordinary people could not fully understand, and at first they were luxuries little connected with their daily lives.

Technological progress has continued, introducing every possible convenience, and yet the things we rely on today and the ways they work are much more difficult than ever to master, let alone understand. Take the personal computer, for example. For all its wonderful powers, most of us really have no idea how it operates and what the basic principle of its functioning might be. Such devices, are, to be, sure, part of the blessings of advanced science and technology. But we are now aware that there are things about the advanced technology we have become accustomed to that—should we make a wrong judgment at some point along the way—could threaten not just our own lives, but destroy other living things and the earth's environment itself. These advanced technologies are naturally based on progress in scientific research, so here let us take a brief look at the development of science.

As with the Greek philosopher Thales's theory that water was the originating principle of all things, philosophy started by studying the laws of the world; the point of departure was the same for both philosophy and science. In the fourth century B.C., Aristotle compiled the findings of the natural philosophy of the ancient world, and Ptolemy (c. 90–168 A.D.) provided a scientific explanation of the universe for the worldview Aristotle described. The well-refined Ptolemaic system was maintained even after the advent of the Christian era, through the work of medieval European philosophers.

Christianity carried on the Judaic worldview, as written in the Old Testament *Book of Genesis*, that out of nothing, God had created the world. First God made "heaven and earth," then "day and night," and then caused plants and trees to grow and animals to proliferate. Finally God made human beings and provided the flora and fauna around them for their use. Because it was believed that the perfect God had created everything on earth, it should all have functioned in a smooth and orderly fashion. Science was

considered to be the pursuit of better human understanding of the world order created by God.

The findings and writings of Copernicus and Galileo setting forth the theory that it was the earth, not the sun that moved, seriously challenged the story of the cosmic order as created by God. Eventually the heliocentric view became widely accepted, but even that did not deal a decisive blow to the order defined by the Judeo-Christian God. The heliocentric structure of the solar system did not really suit the story that God had created heaven and earth, but even if it were the earth rather than the sun that moved, the fact that the cosmos functioned in an orderly fashion—and it was inconceivable that such a vast cosmic order could have formed without the intervention of an almighty God—appeared to prove the existence of such an omnipotent deity. That was the reasoning of Isaac Newton, who perfected the tenets of classical physics.

Kant went on to complete the worldview of Newtonian physics as philosophy. The Newtonian-Kantian worldview was that time and space were absolute, and Kant thought of them as forms of sensation. The phenomena detected with the senses, he believed, are positioned within the a priori conditions of space and time. Space and time are integral to our experience and thus we cannot perceive anything that is not mediated by time or space. Space and time belong not to things, but to the subject of cognition.

The next problem is whether or not there are limits to space and time. If they are absolute, they might be thought to be unlimited. However, if we accept the idea of God's creation of the world, that means there has to have been a beginning of time. To ask the question whether time and space are infinite or not, Kant concluded, is ultimately to face an unsolvable question. And that question remained unanswered into the twentieth century.

The early twentieth century turned out to be a period of scientific revolution of even greater scale than that from Copernicus to Galileo. Two epochal theories leapfrogged classical Newtonian physics. The first was Albert Einstein's (1879–1955) relativity theory. His theory of special relativity and general relativity rejected the notions of absolute time and absolute space and clarified the relativity of time and space.

According to the relativity theory, the way matter exists in time and space is still unambiguous. Quantum theory, however, rejects such unambiguous existence. Particles have contradictory wave and particle properties, and so their position and speed cannot unequivocally be established. When photons are used in order to observe them, the motion of the particles is disrupted, changing their position and motion.

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The formation of these new theories, reflected in cosmology, has made it possible to answer the question of the limits of time and space that Kant believed was unsolvable.

The “big bang” theory of the creation of the cosmos indicates that the cosmos is finite in terms of time, and it has also been discovered that the universe is in the process of expanding and is also finite in terms of space. The rapid strides made in natural science have overturned the view of the world that was long taken for granted.

The Paradigms of Natural Science

This brief look at the development just of physics and astronomy illustrates something of the peculiar character of science. Emerging in the particular circumstances of the West, science is conventionally thought to be constantly progressing by comparison with philosophy. Both philosophy and religion continue to draw on the wisdom of humankind going back more than two thousand years. In the sciences, the progress of research is so rapid that a study that is even five years old becomes hopelessly outdated. Does that mean that the study of philosophy and religion does not progress, while that in science does?

One of the strengths of science is the practice of verification. Findings and theories are tested and verified through experiments and observation. This practice is what guarantees the universal applicability of science. Even though science first arose in Europe, it is open and relevant to people everywhere, regardless of culture and language, and that in turn supports science’s continued progress.

That being said, one might ponder whether the universality and progress of science should be considered absolutely right or correct. The notions that science is verifiable and that it progresses while philosophy is not verifiable and does not progress are the products of the modern age; such notions themselves are not universal. How did it happen that science so rapidly came to preside throughout the world? It was simply because science was established as technology and acquired the power—following Francis Bacon’s words that “knowledge is power”—to conquer the world.

When we look at science today, however, we can see that the merits of the autonomous and limitless development of Western science is no longer convincing. The result of allowing science to develop without restraint was the atomic bomb. Regarding not only nuclear weapons but in many other respects, we can see that there are directions in which unconstrained scientific development can be not a boon but a threat. Progress in science has led to the ability to perform heart transplants, recombine genetic material, harness nuclear fission to generate electric power, and so on, but the dangers of allowing science to progress without limits are now obvious to anyone. The nuclear power plant accident resulting from the March 2011 tidal waves has showed us clearly the damage and destruction that result when human beings become unable to control the outcomes of the science they develop.

Science and scientism are different. Scientism is the expression of the hubris of modern science—the conviction that science can clarify the truth and that anything that

cannot be scientifically proven should be cast aside as useless—a belief in science as the all-powerful (*kagaku bannōshugi*). Its adherents believe that in principle the development of science will lead to the accurate understanding of everything in the world and those things that were not currently understood would in due course be revealed through further scientific pursuits. Some even take an extreme view that, given that the smallest constituents of matter are elementary particles—molecules, atoms, etc.—all sciences lead ultimately to physics, which deals with particles, and physics will therefore explain everything.

According to the uncertainty principle, however, the location and speed of elementary particles cannot be ascertained, and that will mean that physics will ultimately face ambiguity it cannot resolve. The story of Erwin Schrödinger’s cat is often cited to illustrate this situation. This story uses the cruel image of an experiment involving the killing of a cat with poison gas. It is quite unsavory, but may serve its purpose for this discussion. When the possibility that the cat in the box is alive is 50 percent and that it is dead is 50 percent, the question is, “what is the condition of the cat before opening the box?” The cat cannot be seen, but that the cat is either dead or alive is supposed to be certain, and simply stands to reason. However, if we follow the uncertainty principle, the cat in the box is in the state of being 50 percent alive and 50 percent dead, not definitely either dead or alive. The state of the cat can be ascertained by opening the box, but that is a matter of the moment the box was opened and is different from the moment before the box was opened.

Similar to Gödel’s incompleteness theorem discussed in Chapter 4, this story is believed to be the result of pushing strict thinking to its limit. By now, the physics-as-almighty argument that all the phenomena in the world can be mechanically and decisively explained by physics is no longer valid.

It is of course important to explain the world through science and also to put that science to use to enrich our daily lives. But science is not almighty. The scientist’s argument that science will illuminate everything is no longer supportable. What is needed is a meta-science to consider science.

The notion that science has gradually and cumulatively advanced in pursuit of the truths of the world was overturned by Thomas S. Kuhn’s (1922–1996) theory of paradigms in his book, *The Structure of Scientific Revolutions*. The concept of paradigm is used rather loosely, but basically it describes the result of an accumulated tradition of research.⁹² Ptolemaic astronomy, Newtonian physics, and quantum physics are such paradigms. Once a paradigm becomes established, scientific research thereafter is conducted in accordance with that paradigm, experiments and observations are based on its principles, and results are accumulated. It is within that rubric that “conventional science” is formed.

92 Kuhn 1996, pp. 43–51.

Today, science has become very advanced and complex and the equipment used for experiments and observations can be gigantic. Japan's Super-Kamiokande neutrino observatory was built in the abandoned Kamioka mine in Gifu prefecture at a cost of 10 billion yen. Huge amounts of funding from government, academic institutions, and corporations are funneled into the research there, which is carried on, not by a few brilliant individuals but by a large team of scientists that competes with rival teams to come up with results first. The winner will supposedly win a Nobel Prize.

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Looking at the way scientific research is pursued, it does certainly seem to be universalistic and progress-oriented, and yet that is all taking place within a certain paradigm. Now we might ask: Is there any sort of meta-science that could serve as a restraint upon such inexorably progress-oriented science? At present, it is safe to say that there are no established principles to inform such restraints. But

setting up such a restraining function is an extremely important issue. And this brings us back to philosophy and religion.

As I have already observed, modern science emerged out of a history of struggle with Christian orthodoxy. At times the scientists affirmed the glory of God and sought to verify God's existence, but the general direction of their arguments was away from dependence on Christianity. Belief in science led to rejection of religion and in its extreme led to materialism. Those who followed the precepts of science found the notion of God's creation of the world increasingly difficult to believe, and the impact of evolutionary theory was particularly great. Against the assumption that God had created humankind in God's own image, as special and apart from other animals, evolutionary theory held that humans were simply the latest stage of evolution from apes. As I have mentioned, however, this remains disputed up to this very day.

And yet, religion and science do not need to remain in irreconcilable conflict. It is clear that fundamentalist interpretations of religion, such as based on the literal interpretation of the Bible, can no longer be supported. Science, too, can be criticized, but it is unrealistic to put aside the obvious achievements of science. Doing so would make it difficult to come up with principles for control of science, and hence science is left to go along unchecked. Therefore, any thinking we venture to do about religion has to be couched in terms of principles that are not antagonistic to science but are compatible with it.

As noted above, the new science of today has clearly established that relying on the classical substantive philosophy does not work. Here we can perceive its affinities less with Western philosophy than with Eastern philosophy. For example, Neils Bohr, one of the founders of quantum physics, expressed the overlap of waves and particles using the

Taiji (yin-yang) diagram of the Chinese Daoist tradition. Today's view of the founding of the universe, too, inclines less to the notion of the creation by a divine being out of nothing, than to the possibility that it was nothingness itself that led to the formation of the cosmos. Quantum theory has it that nothing (*mu*) is actually not completely empty but incorporates indeterminacy, which is close to the Daoist idea of “mu” (Ch. *wu*). It may be useful to take a new look at the Buddhist idea of insubstantiality (*mujittai*).



Figure 5 Yin-yang diagram

We should be careful not, however, to jump to simplistic conclusions—that the new science does not agree with Western philosophy and Christianity—or that Eastern religion and philosophy is somehow better suited to science. Scientists by no means accept Eastern philosophy uncritically, and the tenets of Christianity are not necessarily beyond their consideration. Today, simplistic notions of the superiority of either East or West are practically meaningless.

Rather, the big question is what the status of science is. In terms of the worldview presented thus far in this book, inasmuch as science uses a mathematical language as its lingua franca, science can be considered a culture characterized by a capacity for achieving understanding through the medium of language. As a result, it belongs to the realm of *ken*, and can be considered to belong in the same category as ethics. In that respect, science must be something that cannot reject the realm of *myō*, for the realm of *ken* can explain and shed light on only a small portion of the realm of *myō*.

Hidden and Otherworldly Nature

The modern Japanese view of nature is very much a product of its age. Prior to that, the natural world had been described as “heaven-and-earth” and the laws that governed it were the laws of heaven and the laws of the way. “Heaven-and-earth” was viewed as the scene of human affairs, but as distinct from the objective view of nature, it was regarded as the source of the bounty that supported human life, and the laws of heaven-and-earth embodied not only the laws of nature but the basic principles of morality.

The word *shizen* (also read *jinen*; Ch. *ziran*)—now used to indicate “nature,” too—means essentially “Let things be as they are”; it was based on Daoism and also incorporated into Buddhism. As seen in the *Dao de jing* (25.4), “Man models himself after Earth. Earth models itself after Heaven. Heaven models itself after Tao. And Tao models itself after Nature [*ziran*].”⁹³ *Ziran* (Jp. *shizen*) is the fundamental form of the Way (Dao) that is the basis of heaven and earth. It represents that most lofty state from which human artifice has

⁹³ *Dao de jing* (Chan), p. 153.

been obliterated and which merges into the laws of heaven and earth. Thus, *ziran* is both the state of heaven-and-earth of the external world and the state of the human ideal.

“Mui shizen” is an oft-used phrase that means “abandoning artifice and just being oneself.” Shinran is known for his teachings about *jinen*

hōni, which means rejecting the calculation of the practitioner and yielding to Amida Buddha.

The word *shizen/jinen*, came to be used in modern times as the translation of the Western concept of nature. Under the influence of European traditions, nature was viewed as purely objective existence separated from moral or religious human nature. By the

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end of the nineteenth century, this westernized view had spread quite widely in Japan and had a strong impact on science but also on the perceptions of nature of Japanese intellectuals. Geographer, writer, and ideologue Shiga Shigetaka’s (1863–1927) *Nihon fūkeiron* (The Landscape of Japan, 1894) presented the Japanese landscape as something to be appreciated for its beauty, separating it from religion or ethics. He defined the qualities of its natural setting as: changeful and diverse climatic conditions and sea currents, abundance of vapors (steam, mist), abundance of volcanic rock, and severity of erosive effects of water. Shiga is known as a mountain climber, but his approach, as contrasted with the mountain climbing of religious ascetics, followed the mountaineering-as-sport orientation that was a product of the modern age.

The new view of nature was not, however, completely unconnected with tradition. Novelist Tokutomi Roka (1868–1927), in his *Shizen to jinsei* (Nature and Human Life, 1900), appeared to represent a modern view praising an objective view of nature. And yet he viewed nature as embracing human life and as a source of refuge and revelation, writing: “Nature, in spring, is indeed the compassionate mother. When we yield to the embrace of nature and feel ourselves to be part of it, we bemoan the limits of our lives and yearn for eternal life. Thus it is in that benevolent embrace that we feel the pathos of attachment (*amae*).”⁹⁴ Such imagery suggests not so much a Christian view of nature as one arising from the idea of the oneness of humanity and nature that is linked to the traditional Asian view of nature.

The idea of nature as the source of revelation and refuge was to become characteristic of the thought of modern Japanese intellectuals. A rather typical example can be found in Shiga Naoya’s (1883–1971) *Dark Night’s Passing*. Surrounded by nature on Mt. Daisen, protagonist Tokitō Kensaku has an epiphany (“I felt my spirit and body blend into the landscape around me”).⁹⁵ So there is a rather peculiar quality to the modern Japanese view of

⁹⁴ Tokutomi 1933, p. 67.

⁹⁵ See also Walker 2003.

nature. In one way Japanese have accepted the Western view that places nature outside of the self, but at the same time they are aware of a sense of refuge to be found in merging into nature. They feel the urge not to assert the self but to have the self embraced and dissolved into the womb of nature. Nature is conceived as devoid of any of the pollution of daily life; it is very abstract and conceptually idealized and purified. The reappraisal of Shinran's idea of the workings of nature without human intervention/manipulation rises out of that urge. It is the urge that shapes the "structure of dependence" (*amae no kōzō*) characteristic of modern Japanese, who believe they can find peace of mind and security by submerging themselves in something larger than themselves. That impulse seems to have something to do with the notion of completely yielding to the cause symbolized by a divine emperor.

Amid these developments in modern Japanese ideas about nature, a figure who stands out for his views was Minakata Kumagusu (1867–1941). Minakata was a self-taught scholar who specialized in research on slime molds and was widely respected for his views on ecology and other branches of natural science. He did not succumb to the clutches of scientism. In a letter to a long-time correspondent he pointed out the limits of science, saying "Science, at least as far as I know, only tells us but a small part of the truth. All we can do is to put in order and organize what we can of that one part and put it to use for human society."⁹⁶ This leaves no room for the worship of science. Science, which follows the laws of the thisworldly realm (*ken*), is an integral part of the mantra pervading the vast realm of *myō*. And as he wrote to Iwata Jun'ichi, the painter and scholar of popular culture, "It is presumptuous of us to think that with only the knowledge available to humans, we can know the absolute truth."⁹⁷

Minakata viewed nature not as external to the self, as is the case in the West, but as something of which human beings are an integral part. His letter to Iwata continues, "Today's scholarship is discussed and taught as if human beings and slime mold were completely different, so there is no benefit in their findings for people outside of academia." Humans are as much part

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of nature as slime mold. The slime mold that was Minakata's research specialty is a form of life that is difficult to categorize as either flora or fauna, and even defies the boundaries between animate and inanimate. Deploring the way scientists thought they could readily divide life and non-life, he goes on, "The people who say that protoplasts are as good as

96 Letter to Dogi Hōryū (1855–1923), leading scholar of Buddhism with whom Minakata corresponded for more than 30 years. Letter of 18 July 1903; "Minakata mandara" [Minakata Mandala], Minakata 1991, vol. 1, p. 306.

97 Letter to Iwata Jun'ichi. Minakata 1991, vol. 3, pp. 335–38.

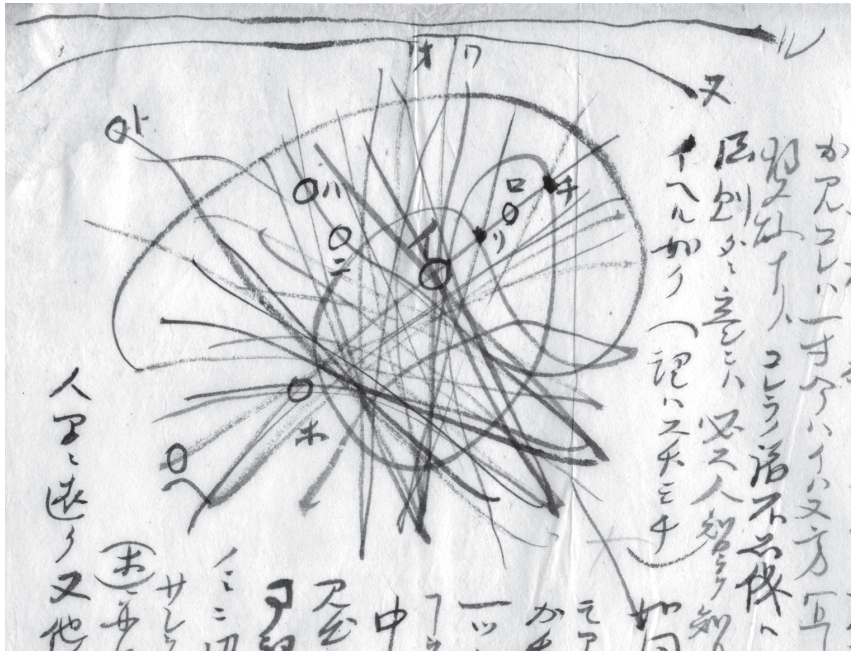


Figure 6 The “Minakata mandala” (collection of the Minakata Kumagusu Archives, Tanabe, Wakayama prefecture)

dead have it all wrong. That shapeless, slimy semi-fluid they so disparage is in fact the living protoplast and the slime mold is dead tissue to protect the spores that will later propagate. So they observe the dead matter and say the mold has grown and they see the living matter and say that it’s dead.”

The human eye sometimes sees things only superficially, and when viewed from a different perspective, what might seem alive could be dead and what appears to be dead might in fact be alive, as he illustrates in the scene depicted at the beginning of this chapter.

The famous “Minakata mandala” (see Figure 6) demonstrates this perspective quite well. It proposes five kinds of mystery: “There is mystery. There is the mystery of the abstract. There is the mystery of things. There is mystery of the psyche, and mystery of the principle, and there is the great mystery of Dainichi Nyorai.” The mystery of things is resolved through science, the mysteries of the psyche are illuminated by psychology, the mystery of the abstract is clarified through mathematics, and the mystery of principle is what is behind mathematics. These four mysteries, while they are called mysteries, are different from the great mystery of Dainichi Nyorai in that they can be understood through human intelligence only if we identify the laws that govern them. In other

words, they are part of *ken's* visible, knowable realm. Minakata's mandala shows the complex criss-crossings of the reasoning of these four realms.⁹⁸

The mystery of the Cosmic Buddha Dainichi Nyorai (Sk. Mahāvairocana Tathāgata), meanwhile, transcends all the other four, says Minakata, and “whatever is beyond everything shown in the picture—that is the great mystery of Dainichi.” In other words, Minakata is saying that the mystery of Dainichi cannot be depicted graphically. But is that really so? Isn't the idea of a real mandala to clarify the world of *myō* that cannot be explained by the laws? (Minakata himself, though, did not call this sketch a “mandala.”)

The irrepressible Minakata is well known for his protests and opposition to the consolidation of Shintō shrines that the Japanese government tried to enforce beginning in 1906. In a letter to influential folklorist Yanagita Kunio he wrote, “Those who, blinded by immediate self-interest, destroy the old shrines where people have worshiped for generations are engaging in a traitorous act no different from giving internal information to a foreign invader.”⁹⁹ The forests that traditionally enclosed Shintō shrines were the homes of diverse plants and animals. For people to summarily destroy such places would certainly wipe out all the plant and animal life that flourished there. Minakata's views may be interpreted as a reflection of his ideas on ecology, but fundamentally he saw the world as embracing not only the habitats of humans, plants, and animals but of the mystery of Dainichi including hell and other worlds.

The Deities within Nature

What is it that exists behind nature? The answer ought to be clear from the discussion of the previous chapters. As I have argued, there is no point in asking whether it *exists* or not, since relationship precedes existence. The real question is with whom, or with what, we have what kind of relationship.

Take for example someone who might be standing in front of me. All I can see is a figure in the shape of a person wearing clothing. But I would nevertheless recognize that figure as a person and relate to it on that basis. It is not necessary to objectively prove whether that figure has a mind or not. One would similarly relate to even a sick person who is comatose and unresponsive. Indeed, even a pet, one would speak to and protect in the same manner as a person. Then how would one see a flower or tree? One might feel inspired to call out to flowers and cherish them.

As an example, in Chapter 6, I cited Uchiyama Takashi's study about how the Japanese belief in the semi-divinity of foxes and how stories of foxes tricking and cheating human beings seem to have disappeared around about 1965.¹⁰⁰ After that foxes came to be seen as simply animals, signaling a change in the way people perceive the

98 Included in a letter to Dogi Hōryū, 18 July 1903. Minakata 1991, vol. 1, pp. 295–98.

99 Letter to Yanagita, 25 May 1911. Minakata 1991, vol. 2, p. 428.

100 Uchiyama 2007.

relationship between humans and foxes. As Uchiyama points out, what is important is not the question of whether foxes really trick humans. It was simply a time when foxes—who were believed to play tricks on humans—were part of people’s everyday life, along with equally cunning raccoon dogs (*tanuki*), badgers (*mujina*) and the like. A foreigner who came to live in a village of such a tradition, however, was observed as never being “tricked” by a fox. Uchiyama surmises that the reason was because the culture that surrounded the foreigner was different.¹⁰¹

Ecological and environmental questions are often in the news these days as well as talk of “environmental ethics.” Human rights may be important, it is argued, but nature itself has “rights.” Animals, no less than humans, have rights; plants and even rocks have a right to exist. In *The Rights of Nature*, Roderick F. Nash asserts that we ought even to recognize the right to existence of bacteria harmful to humans. Such arguments might seem only to expand on humanitarian thinking, attempting to project our own criteria of humanitarian rights onto things other than humans and assimilate them into our own way of thinking. The notion of asserting the rights of whales even if it means inflicting harm on human beings seems an odd way of reasoning. It seems to me that such assertions completely lack a perspective of how humans should relate to whales. Here “rights” are conceived as something a priori, objectively established apart from humanity.

We can look at the same issue from the point of view, not of “nature’s rights,” but of the rather different perspective of our relationship with nature. This is well illustrated in a story related by folklorist Nomoto Kan’ichi heard from an elder of the city of Takayama, Gifu prefecture:

Even on our own property, when it came time to rebuild a house, it would be dismantled, but it was forbidden to put in new foundations and start construction immediately afterwards. The site was supposed to be allowed first to return to nature. So after a house had been taken down, it was advised that the cleared site be planted with seeds. . . . If the seeds grow on the land, we would know that the site had returned to nature. Only then was it considered all right to start work on building the foundations for the new house.¹⁰²

As Nomoto observes, we can see in these traditions the attention the people of that locale paid to the spirits of the land and the place. From the time rapid economic growth gained momentum in Japan following World War II, such attentiveness to the spirits of the land and the folk wisdom that came with such traditions has virtually disappeared. Amid the frenzy of modernization and development, the abodes of spirits of the soil,

101 Uchiyama 2007, p. 115.

102 Nomoto 2010, p. 1.

places of repose for earth spirits, and the homes of minor folk deities have been crushed, destroyed, and obliterated. “One can hear the moaning of the spirits of the earth,”¹⁰³ warns Nomoto.

Some will say there are no such things as spirits of the earth; the claim that they are “moaning” is only intended metaphorically. It is the same thing as illustrated by the example of the trickster foxes. As Uchiyama observes, the ability to be tricked by a fox is an important ability. If one does not have that ability, that is, if one does not have that kind of relationship with foxes, one would not be able to be tricked by them.

The ascendancy of modern rationalism and the development prioritizing the economy have robbed foxes of their trickster powers and wreaked havoc among the spirits of the land, whose voices we are no longer attuned to hear. Certainly I myself can hardly hear them at all. And yet, I think I feel some of the pain they are suffering.

At the time of the Tōhoku Earthquake in 2011, when I wrote that, “a force has stirred that transcends and is greater than that of the world of humans,” I was deluged with criticism. The point at issue is whether or not we will accept that we have some connection with whatever it is that transcends the kind of natural forces that perpetrated the disaster. Most writers about the disaster have argued that a natural disaster is solely a matter of what has occurred in nature, and they reject the possibility of any force behind it. What I have done is to argue that we should recognize that there is such a power. It is quite possible that something behind the natural phenomena that have been suppressed might moan or even boil forth violently. This idea should not be rejected out of hand. The debate did not go anywhere, but I think this is a very important issue to address.

Since antiquity, the Tōhoku region has fostered numerous distinctive religious beliefs not part of formal Buddhist traditions as well as customs of existential communion with the dead. These customs are still alive today in many places. There are places like this where the beliefs passed down from antiquity continue to be alive and vigorous. The city of Kyoto is another such place as well as the island of Shikoku, where belief in the teachings of Kōbō Daishi (the posthumous title of Priest Kūkai, 774–835) remains widespread. Tokyo is among the places where such ancient beliefs have vanished. It is extremely difficult to hear the voices of the dead or of the spirits of the earth anywhere in the metropolis. In the vacuum left by the loss of such traditions, neo-new religions have cropped up that teach about “spirits.” It is likely that support for the Aum Shinrikyō cult grew out of such a vacuum.

In the reconstruction of Tōhoku following the disaster, care should be taken not to try to “clean up” everything according to the rationalistic logic that governs a place like Tokyo. Even if the scientific explanations for the disaster are all in place, it would be wrong to reject outright the thought that there are forces that might lie behind it. As I

103 Nomoto 2010, p. 2.

have said before, science is not everything. The path toward reining in science might lie in recognizing the power of the world of *myō*—which might at first seem like nonsense—and in establishing some kind of relationship with the forces of that world. This could be achieved by continuing along the path opened up by Minakata Kumagusu.