-President's Message



Satoshi Kawata at the Fushimi Inari shrine in Kyoto, Japan.

Protecting Earth's environment is our most important responsibility.

e live on one planet, and protecting its environment is our most important responsibility for the future. Part of that responsibility is to develop and apply the principles of optical and photonic technology to monitor, measure and analyze global atmospheric and oceanic temperature, pollution and more. The Global Environmental Measurement and Monitoring (GEMM) Initiative, a joint project of Optica and the American Geophysical Union, is one such effort.

Human activity has been, and remains, the most destructive force for Earth's natural environment. Warfare and invasions, the worst of human pursuits, of course are also among the worst destroyers of the planet's health. But people also clear wilderness to grow crops for humans to eat; cut down trees in forests to build houses and burn as fuel; excavate mountains to unearth minerals; drill pristine deserts for oil. We fish, reclaim and pollute the oceans and raise farm animals on land. Many wild animals and plants have lost their habitats as a result.

In Japan, people have long believed that humans who selfishly destroy the environment face punishment from the gods. Natural disasters—floods caused by heavy rains, earthquakes, fires caused by dry weather—were thought to be a warning by the gods against human arrogance. Further, folktales describe how foxes, as messengers of the gods, play tricks on people as the revenge of animals on humans for their encroachment, by plowing, watering and cultivating rice fields, on places where wild animals used to live. (Foxes were probably used as a substitute for wolves, which had been completely extinct in Japan.)

Villagers therefore believe it is at the expense of foxes, as victims of human encroachment, that they are able to grow and eat rice. The Japanese philosopher Takeshi Umehara, in his book *The Idea of the Forest Saves Mankind* (Shogakukan, 1995), recounts how villagers build shrines called Inari—the literal translation is "harvest of rice," but it can also mean "fox"—to make amends to foxes, and offer rice bales and sake made from rice in the festival of thanksgiving. Stone statues of a pair of foxes adorn the vermillion gates, or torii, in front of the shrine. Such Inari shrines can be seen everywhere in Japan—there are some 32,000 of them in the country, the most famous of which is the Fushimi Inari in southern Kyoto.

Electric vehicles, wind power and white LEDs are all wonderful technologies that can have a real impact on Earth's environment. But perhaps the best way to protect the Earth is for humans to curb their arrogance and reduce their harmful impacts. We should cut our power consumption in gestures large and small: driving as little as possible; closing down our laptops and getting off the internet for a while; turning off our air conditioners whenever possible. We should work during the day when the sun's rays reach us, and count the stars in the sky at night.

Otherwise, someday, the foxes will get even.

I would welcome your thoughts on this message or other topics at ideas@optica.org.

—Satoshi Kawata, Optica President

A Japanese translation of this message appears on the next page.

会長メッセージ-

私たちは一つの惑星に生きており、地球の環境を守ることは地上の全ての生命体の将来に対する、人間の重大なる責任だと思います。Opticaは、この社会課題に対してAmerican Geophysical Unionと協力して、Global Environmental Measurement and Monitoring (GEMM) Initiativeというプロジェクトを推進し、光学およびフォトニクスを用いて、グローバルな大気や海洋温度の測定、環境汚染の監視・測定そして分析をするための原理と技術開発に取り組んでいます。

かつて (そして今も)、地球自然環境を最も破壊するのは、人間の営みです。特に戦争や侵略は最も破壊的であり、地球という惑星の健康を著しく壊します。戦争や侵略をしなくても、人は自然の荒野を開拓し自分たちの家を建てるために、そして燃料を得るために森林を開拓し木を切り倒し、山を掘って鉱物を発掘し、砂漠からは石油を発掘します。海では海洋生物を釣り、陸地では動物を飼育します。自然の海を埋め立て、汚します。これらの結果、多くの野牛の動物たちが牛きる場所を失いました。

私の住む国、日本では古くから、人間が自分たちのエゴのために必要以上に環境を破壊すると、神様が我々を罰すると信じられてきました。大雨による洪水や地震や、乾燥による大火事等の天災は、人間の傲慢さに対する神の戒めです。神の使いであるキツネが人間にいたずらをするという民話や言い伝えは、野生動物達の人間への復讐だと梅原猛さんが教えてくれます(野生動物の代表はオオカミ=大神なのですが、そのオオカミが絶滅してしまったため言い伝えや民話では代わりにキツネが登場します)。

梅原猛さんは著書『森の思想が人類を救う』(小学館、1995)の中で、村人たちはキツネのために稲荷神社を建て、収穫した米俵と米の酒を供えてキツネに感謝すると教えてくれます。そして、全国の稲荷神社に並ぶ朱色の鳥居の前にはすべからずキツネの像があります。稲荷神社は本山の伏見稲荷をはじめとして、全国に3万2千社もあり、日本では最も親しまれている神社の一つです。

電気自動車や風力発電、白色LEDなどは、地球環境の破壊を抑えることのできる素晴らしい先端技術です。しかし、地球を守る一番の方法は、人間が傲慢さを抑えて地球への影響を最小にすることかもしれません。車の運転をできるだけ控える、ノートパソコンを閉じてインターネットをしばらく使わない、エアコンをできるだけ止めるなど、大小さまざまな方法で電力消費を抑えることが必要でしょう。

太陽の光が届く昼間に仕事をして、夜は夜空の星を数えましょう。

このメッセージや他のトピックについて、皆さんのご意見をideas@optica.orgで歓迎します。

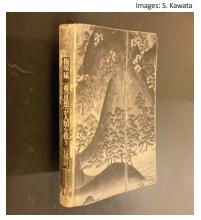
河田 聡 Optica 会長



The vermillion gates of the Fushimi Inari shrine.



A fox statue at an Inari shrine near Satoshi Kawata's home.



Japanese edition of Takeshi Umehara's The Idea of the Forest Saves Mankind.