

Preface

Starting in 1978, I worked 26 years for the INAX Corporation, a private company. In the latter half of this period, I concurrently held the posts of Chair of the Environmental Strategy Committee and the Technical Strategy Committee of the company and served as Chief Technical Officer, thus expending much energy on the question of how to balance the environment with economic performance in a corporation. I was, however, unable to come up with a satisfactory answer to this question. Not only did I have trouble finding the right answer; being unable to overcome the contradiction between environment and economy, I found myself being pulled ever deeper into the negative spiral created by this paradox. At the same time, I shuddered at the thought that without an answer to this question, manufacturing in Japan would have no viable future.

In order to search for an answer, I quit the company and took up a position at Tohoku University in 2004. Nine years have passed since then. Have I found an answer? Unfortunately, not yet, but I have started to get a feeling for where the doors are that must be opened to arrive at an answer.

On March 11, 2011, an earthquake of unprecedented scale struck the Tohoku Region where I work and live. If we think of civilization as the aggregation of technology, the dramatic way in which the cosmetic surface of civilization peeled off in an instant made me reconsider numerous issues. What does it mean to face the global environmental issue squarely? How can we contemplate the issue of living wholesome, fulfilling lives? And, what is the role of technology—now so urgently questioned—in contributing to these two issues? It struck me that finding solutions to these issues is the responsibility of the survivors of the horrible earthquake and also one way of paying respect to those who lost their lives. Here, indeed, lies the answer to the question of how to balance the environment and the economy.

One solution, undoubtedly, is to be found in a Nature Technology development system which intelligently harnesses the amazing powers of nature. In 2009, as the notion of “Nature Technology”, if still vague, started taking shape, I published a book from Tohoku University Press entitled *Channeling the Forces of Nature*, with the help of two colleagues. In this book, I had not yet discovered the lifestyle

approach which was one of the doors to answering the questions at hand, nor could I envision the actual methodologies required to design such lifestyles. Later, with the help of Dr. Ryuzo Furukawa, who has worked with me since 2005, and other colleagues, our research made significant progress, and the contours of a Nature Technology development systems started emerging. I feel as if the fog has rapidly started clearing. It is thus fair to say that the book you are holding in your hands is a reexamination of the philosophy of a Nature Technology development system and the actual approaches and methodologies involved.

The development of Nature Technology involves using a backcasting approach to envision lifestyles that are wholesome and fulfilling even under severe environmental constraints; identifying the technologies required to enable such lifestyles; searching in nature for the seeds of such technologies; and then—through the filter of sustainability—redesigning these as applicable technologies.

In our analysis of the lifestyles envisioned with backcasting, we found that many people strongly, yet often unconsciously, yearn for nature and enjoyment in their daily lives. We have also learned that in the development of technologies to enable such lifestyles, the notion of *iki*—described in detail in Chap. 10—which takes nature as its point of departure, is of the utmost importance.

There are still several hurdles we need to overcome in order to complete a system for the development of Nature Technology. It is, however, my sincere hope that the methodologies and research results presented in this book may help share new ways of thinking about how to shape exciting, wholesome, and fulfilling lifestyles even in the face of rapidly intensifying environmental constraints, thus also laying a few stones in the path to a new civilization based on a fresh set of values which do not merely extrapolate from the past.

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