Introduction

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There is no single policy that deals more adequately with full resource use, an abatement of pollution, and even the search for more labor-intensive activities than a planned and purposive strategy for human settlements.

—Barbara Ward and René Dubos,
Only One Earth, p. 180

Although some politicians, some industrialists, some naturalists and others would like to create a dichotomy between human settlements and the natural environment, there is none. Each contribution to this book provides supportive evidence and outlines proposals for organizing human settlements in concert with nature.

The global environment—as many have pointed out—has been modified to the extent that the natural equilibrium is unknown. But the cumulative knowledge of mankind has been increasing with regard to our planetary systems—the earth's atmosphere, its surface, its interior, and its flora and fauna. In cases in which this knowledge has been applied to settlements, the population has benefited. Until Tokyo's building regulations were modified for earthquake conditions, its population lived in considerable fear. Understanding the local atmospheric conditions that manufacture smog in the Los Angeles basin led the citizens to take action with regard to automotive pollution.

In Reykjavik, the gloomy and cold capital of Iceland, the zoning ordinance positions houses on the southern exposure to maximize the limited sunlight and make living conditions more pleasant. These cases and others described in this book illustrate synergies between settlements and nature, creating environments that can have negative or positive effects on mankind. Because settlements are not only local but also universal phenomena around the globe, the audience for the strategies outlined herein ranges from people with purely local to those with international concern.

There are examples and principles relevant to people in all environments. For the peoples living in industrialized nations, who must become more and more energy conscious and environmentally concerned, ways are shown to renew old settlements and to build new ones in concert with nature. For the peoples of the developing countries, where the necessity to build settlements is the greatest, and capital is the shortest, frameworks are outlined that will allow incremental development of settlement systems, using labor-intensive methods and intermediate technologies. And finally, for the peoples blessed with an abundance of energy, models are pointed out for building new settlements with advanced technologies that provide for human needs without destructiveness to the environment.

The ideas are specific, even when dealing with outlines for planning, and none are overly complex, even when dealing with advanced technologies. The material is presented so that any council member, legislator, concerned citizen, or student can understand it.

Some readers will discover different proposals that are appropriate to the problems of their own area. Other readers will learn about exciting new developments that will stretch their minds. And still other readers who are concerned with global strategies will use the articles as supporting evidence.

Each author was selected because he is at the forefront in his field and is able to present explicit proposals. The individual strategies are grouped into three parts; the first establishes the framework for considering settlement systems and natural

systems. The last two parts interchange the dependent variables: first, the organization of nature in terms of settlements, and then the organization of settlements in terms of nature.

Buckminster Fuller leads off Part I with his continually fresh approach to holistically building the future. But he admits that whether the world will ever achieve the promise of a brighter future depends on the decision taken now for the next 25 years. Specific policies that can be, and in a few places have been, implemented are spelled out in the remainder of the first part.

The articles in the last part are specific. All the proposals in Part II emphasize the importance of the production of food, materials, and energy close to the area of consumption in settlements. For examples, Taylor Pryor describes a closed system of aquaculture for the tropics; C. A. Morrison illustrates the principles of solar heating; other authors treat topics equally to the point. These are concrete ways in which many regions can move from the "cowboy" economy of the past in which the wealth of a city was based on its exports, to the "spaceship" economy of the future in which wealth is dependent on how wisely inhabitants provide for themselves.

The closing part of the book emphasizes high technology solutions that have low environmental impacts. These are investments which have few external diseconomies and low long-run costs. They are not designed for the industrial city of the past, but for the environmental city of the future.