

Pilgrimages to Emptiness - Synopsis

This book is an invitation to recover the sense of wonder for the immensity of existence. It uses science to go beyond science, it uses the little we know to celebrate the splendor of the unknown.

The essential **unity of mind and matter** is the theme of the first two chapters. The first chapter outlines how we gradually lost that sense of unity in the development of Western culture and we arrived at an essentially materialistic world view. Chapter 2 describes the key notions of quantum physics and deals extensively with the problem of understanding the process of observation (the so-called quantum measurement problem). It argues that, paradoxically, as we have been diving deeper into the heart of matter, we have been forced to reconsider our philosophical assumptions in favour of a view of mind and matter as complementary co-arising aspects of the process of experiencing.

The next two chapters tackle the issue of **determinism and freedom**. Chapter 3 develops some basic notions of chaos theory, focusing particularly on the spontaneous emergence of order and on dissipative structures and symmetry breaking as necessary background for a discussion of the limits of macroscopic determinism. Chapter 4 applies the arguments of the previous chapter to a discussion of determinism and freedom, holism and reductionism.

Chapters 5 and 6 deal with the **nature of space and time**. Chapter 5 focuses particularly on the arrow of time. The fundamental equations of physics are symmetric with respect to time reversal, exchanging past and future. Yet our everyday experience contains a very definite arrow of time: the film of life cannot be run backwards without appearing manifestly absurd. How we can understand this contradiction? Chapter 6 outlines how our understanding of space and time has evolved away from an intuitive notion based on immediate perception. It examines the key features of Einstein's general relativity and such extreme consequences of it like the Big Bang and black holes. Finally it briefly discusses the radical perspectives on space and time emerging from the current work in progress on the unification of gravity with quantum theory.

The last two chapters open up a further dimension of the journey of this book. Chapter 7 proposes a specific reading of the first chapter of the *Daodejing* (*Tao Te Ching*) that illuminates the co-arising of mind and matter, consciousness and world, subject and object, suggesting a non-dual way to hold this duality together in awareness. In Chapter 8 three short Chinese poems close the book as an invitation to a **pilgrimage to emptiness**.