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Nota di contenuto	Front matter -- Contents -- INTRODUCTION. A Recipe for Change -- ONE. Loops and Lotteries -- TWO. From Genes to Ecosystems -- THREE. Conversations of an Embryo -- FOUR. Completing the Picture -- FIVE. History in the Making -- SIX. Humble Responses -- SEVEN. The Neural Sibyl -- EIGHT. Learning through Action -- NINE. Seeing As -- TEN. Framing Recipes -- ELEVEN. The Crucible of Culture -- TWELVE. The Grand Cycle -- Acknowledgments -- Notes -- References -- Illustration Credits -- Index
Sommario/riassunto	Cells to Civilizations is the first unified account of how life transforms itself--from the production of bacteria to the emergence of complex civilizations. What are the connections between evolving microbes, an egg that develops into an infant, and a child who learns to walk and talk? Award-winning scientist Enrico Coen synthesizes the growth of living systems and creative processes, and he reveals that the four great life transformations--evolution, development, learning, and human culture--while typically understood separately, actually all

revolve around shared core principles and manifest the same fundamental recipe. Coen blends provocative discussion, the latest scientific research, and colorful examples to demonstrate the links between these critical stages in the history of life. Coen tells a story rich with genes, embryos, neurons, and fascinating discoveries. He examines the development of the zebra, the adaptations of seaweed, the cave paintings of Lascaux, and the formulations of Alan Turing. He explores how dogs make predictions, how weeds tell the time of day, and how our brains distinguish a Modigliani from a Rembrandt. Locating commonalities in important findings, Coen gives readers a deeper understanding of key transformations and provides a bold portrait for how science both frames and is framed by human culture. A compelling investigation into the relationships between our biological past and cultural progress, *Cells to Civilizations* presents a remarkable story of living change.

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