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Nota di contenuto	Frontmatter -- Contents -- Preface -- Part 1. Combogenesis and a Grand Sequence -- 1. Natural Chapters and Nested Scales -- 2. The Core Theme -- Part 2. Twelve Fundamental Levels -- 3. A Big Bang Start of Things and Relations -- 4. The Nucleons, with Immortal Proton and Fragile Neutron -- 5. Atomic Nuclei from Mutual Aid -- 6. Atoms with Space-Filling, Electric Mandalas -- 7. An Expanding Cornucopia of Molecules -- 8. Simple Cells Launch Life and Evolution -- 9. The Sexy Eukaryotic Cell -- 10. Multiple Ramps to the Complex Multicellular Organism -- 11. Animal Social Groups Wild with Possibilities -- 12. Tribal Metagroups and Cultural Evolution -- 13. Transplantable Agrovillages -- 14. Geopolitical States, Masters of Acquisition and Merger -- 3. Dynamical Realms and Themes -- 15. Dynamical Realms and Their Base Levels -- 16. Alphakits: Atomic, Genetic, Linguistic -- 17. Themes in Evolutionary Dynamics -- 18. Convergent Themes of Combogenesis -- Epilogue. What About the Future? -- Acknowledgments -- Glossary -- Notes -- Bibliography -- Index
Sommario/riassunto	Our world is nested, both physically and socially, and at each level we find innovations that are necessary for the next. Consider: atoms combine to form molecules, molecules combine to form single-celled organisms; when people come together, they build societies. Physics has gone far in mapping the basic mechanics of the simplest things and the dynamics of the overall nesting, as have biology and the social

sciences for their fields. But what can we say about this beautifully complex whole? How does one stage shape another, and what can we learn about human existence through understanding an enlarged field of creation and being? In *Quarks to Culture*, Tyler Volk answers these questions, revealing how a universal natural rhythm-building from smaller things into larger, more complex things—resulted in a grand sequence of twelve fundamental levels across the realms of physics, biology, and culture. He introduces the key concept of "combogenesis," the building-up from combination and integration to produce new things with innovative relations. He explores common themes in how physics and chemistry led to biological evolution, and biological evolution to cultural evolution. Volk also provides insights into linkages across the sciences and fields of scholarship, and presents an exciting synthesis of ideas along a sequence of things and relations, from physical to living to cultural. The resulting inclusive natural philosophy brings clarity to our place in the world, offering a roadmap for those who seek to understand big history and wrestle with questions of how we came to be.
