The earth's subsurface contains abundant and active microbial biomass, living in water, occupying pore space, and colonizing mineral and rock surfaces. Caves are one type of rocky subsurface habitat. Within the past 30 years, there has been an increase in the number of microbiology studies from cave environments to understand cave ecology, cave geology, and even the origins of life. By emphasizing microbial diversity and the ecological processes and geological consequences attributed to microbes, this book provides the first authoritative and comprehensive account of the microbial life of caves. This book is aimed at students, professionals, and general readers, and features case studies of geologically and geochemically diverse caves, including carbonate caves and lava tubes, as well as of caves infamous for their cultural heritage. Microbial diversity across cave types is compared, and potential benefits of microbial colonization of caves are described, including for the identification of antimicrobial compounds and unique biosignatures useful in our search for life in the universe.

- Unique focus on the diversity of microbial life of caves
- Examination of ecological processes and geological consequences attributed to microbes in cave environments
- Case studies of selected projects
- Full color illustrations

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