

Accretionary orogens form at convergent plate boundaries and include the supra-subduction zone forearc, magmatic arc and backarc components. They can be broken into retreating and advancing types, based on their kinematic framework and resulting geological character.

Accretionary systems have been active throughout Earth history, extending back until at least 3.2 Ga, and provide an important constraint on the initiation of horizontal motion of lithospheric plates on Earth.

Accretionary orogens have been responsible for major growth of the continental lithosphere, through the addition of juvenile magmatic products, but are also major sites of consumption and reworking of continental crust through time.

The aim of this volume is to provide a better understanding of accretionary processes and their role in the formation and evolution of the continental crust. Fourteen papers deal with general aspects of accretion and metamorphism and discuss examples of accretionary orogens and crustal growth through Earth history, from the Archaean to the Cenozoic.