

**Proterozoic tectonostratigraphy of the Avalonian-Cadomian belt: an example of orogenic activity at the extremity of a Late Proterozoic supercontinent**

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The Late Proterozoic Avalonian-Cadomian belt may represent orogenic activity between the amalgamation and break-up of supercontinents. This activity is characterized by synorogenic sedimentation and bimodal arc-related volcanism that unconformably overlies a passive margin sequence, and by locally intense strike-slip related deformation that is penecontemporaneous with deposition. Angular unconformities are largely restricted to areas affected by strike-slip deformation. The belt is also characterized by the lack of evidence for widespread deformation, crustal thickening or delamination suggesting that the termination of the orogeny was not due to continent-continent collision. The passive margin succession probably represents the

trailing edge of a continent prior to supercontinent amalgamation. The inception of the Avalonian-Cadomian orogenic cycle is attributed to southward-directed subduction along the margin of the supercontinent after its amalgamation. The termination of subduction is attributed to transform activity associated with the breakup of the supercontinent, and initiation of the Iapetus cycle. Transform activity may have resulted in the closure of some late Precambrian arc-related basins, the development of Early Cambrian intra-continental rifts and the end of the Avalonian-Cadomian cycle.