

**SUGGESTED OROGENIC DEVELOPMENT FOR PALAEOZOIC TASMANIA**

MINERAL RESOURCES TASMANIA      **AUTHOR:** K.D.CORBETT      **DRAFTSPERSON:** A.J. HOLLICK      1994      **5521**

5 cm

AGE AND NAME	EVENTS AND EFFECTS
<p><b>380 to 420 Ma</b></p> <p><b>MIDDLE DEVONIAN</b> Tabberabberan Orogeny</p>	<ul style="list-style-type: none"> <li>● Thrusting of Mathinna terrane over West Tasmania terrane</li> <li>● Fracturing of Tyennan Massif and limited over-thrusting to west</li> <li>● Widespread folding and cleavage development (deep burial)</li> <li>● Reactivation of many faults, some thrusting</li> </ul> <p>↑ Continuous deposition during period of tectonic "meta-stability"</p>
<p><b>490 to 509 Ma</b></p> <p><b>MIDDLE TO LATE CAMBRIAN</b> <i>POST-COLLISIONAL OROGENIC PERIOD</i> Jukesian or Delamerian Orogeny</p>	<ul style="list-style-type: none"> <li>● Deposition of shallow-water siliciclastic sequences</li> <li>● Intermittent uplift and erosion of Tyennan Massif</li> <li>● Local folding and cleavage development; continuous faulting</li> <li>● Deposition of coarse flysch sequences, partly from erosion of nappe complexes</li> <li>● Eruption of Mt Read Volcanics along Tyennan margin</li> <li>● Rebound thrusting and other fault adjustments</li> </ul> <p>↑ Continuous tectonism</p>
<p><b>? to 510 Ma</b></p> <p><b>EARLY TO MIDDLE CAMBRIAN</b> <i>MAIN COLLISION EVENT</i> Penguin Orogeny?</p>	<ul style="list-style-type: none"> <li>● Deformation and metamorphism of Arthur Lineament belt (leading-edge effect?)</li> <li>● Large-scale thrusting and telescoping of Proterozoic fragments in melange matrix</li> <li>● Deformation of in-situ Proterozoic rocks and Crimson Creek Formation</li> <li>● Emplacement of nappes of arc-derived mafic-ultramafic rocks and associated chert-rich "oceanic" lithologies to form complex melanges</li> </ul>

Fig.1 Suggested orogenic development for Palaeozoic Tasmania