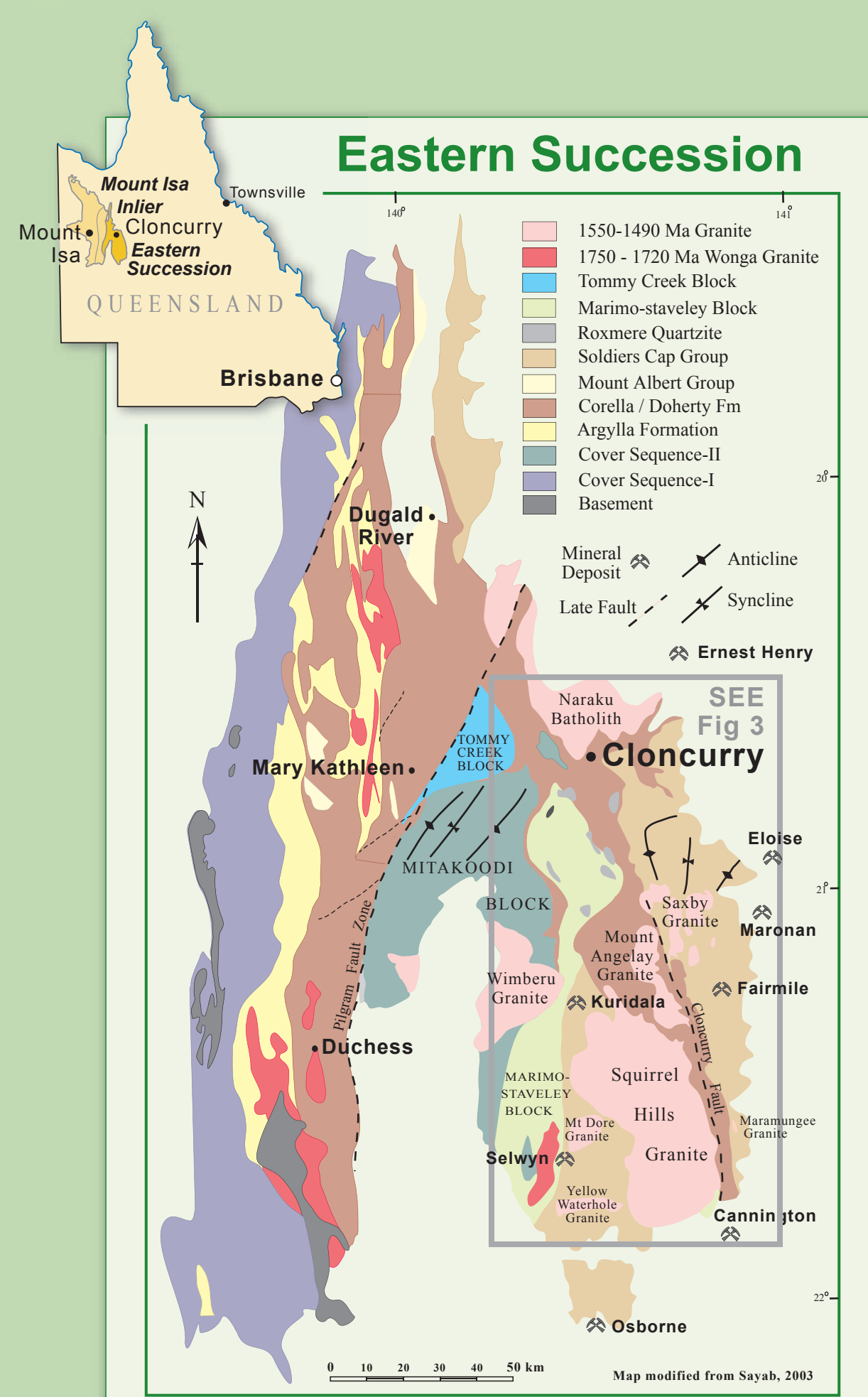
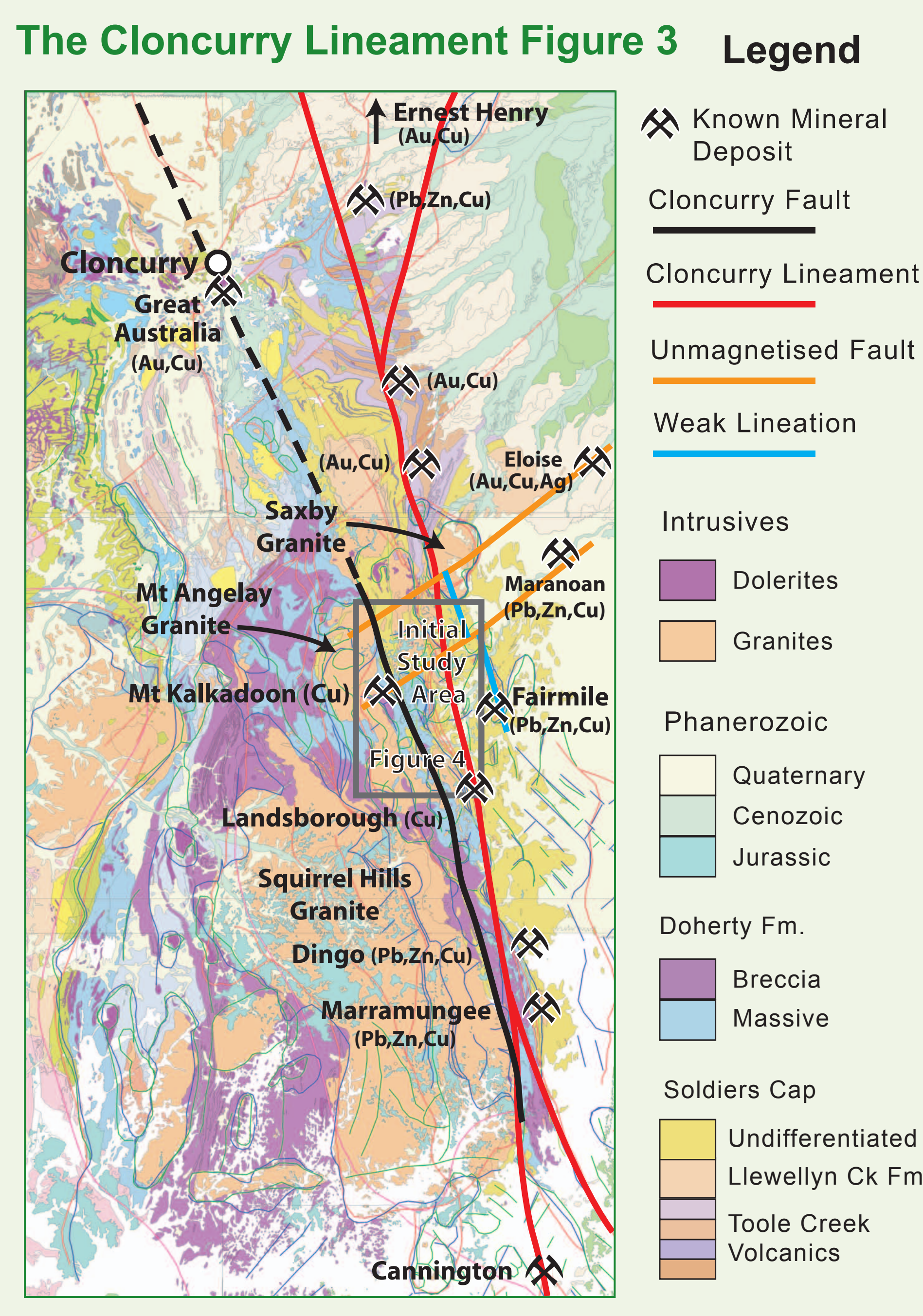


Digging Deeper with “Worms”: Finding Structure in Geophysics, Mount Isa Eastern Succession



^ Figure 1: Mount Isa Eastern Succession.

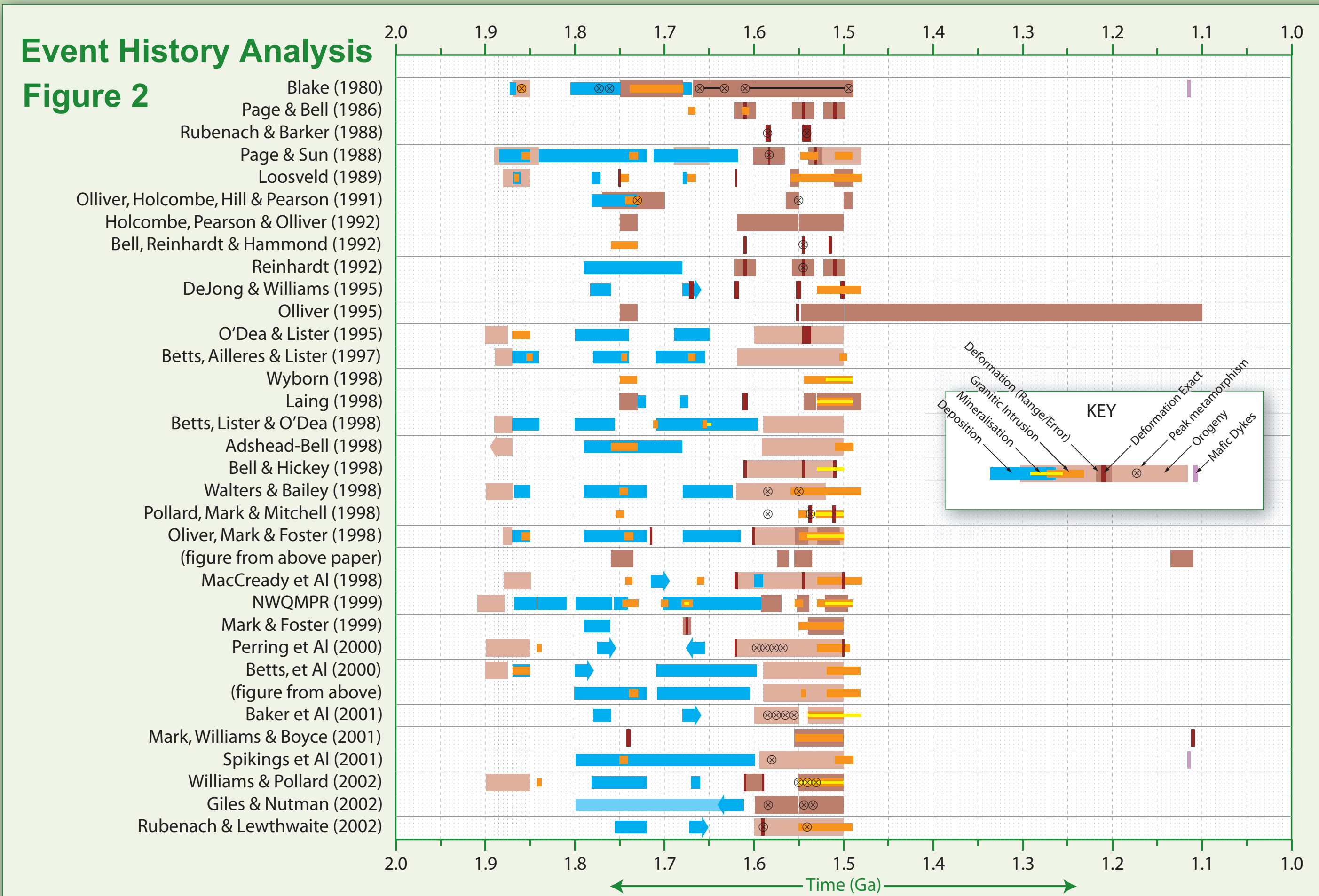
> Figure 2 graphically identifies event histories proposed by various authors to better understand the critical arguments within the literature. *Wide debate of the tectonic history may stem from authors' different viewpoints, interests and references and it justifies further investigation* into the tectonic history of the Mt Isa Inlier.



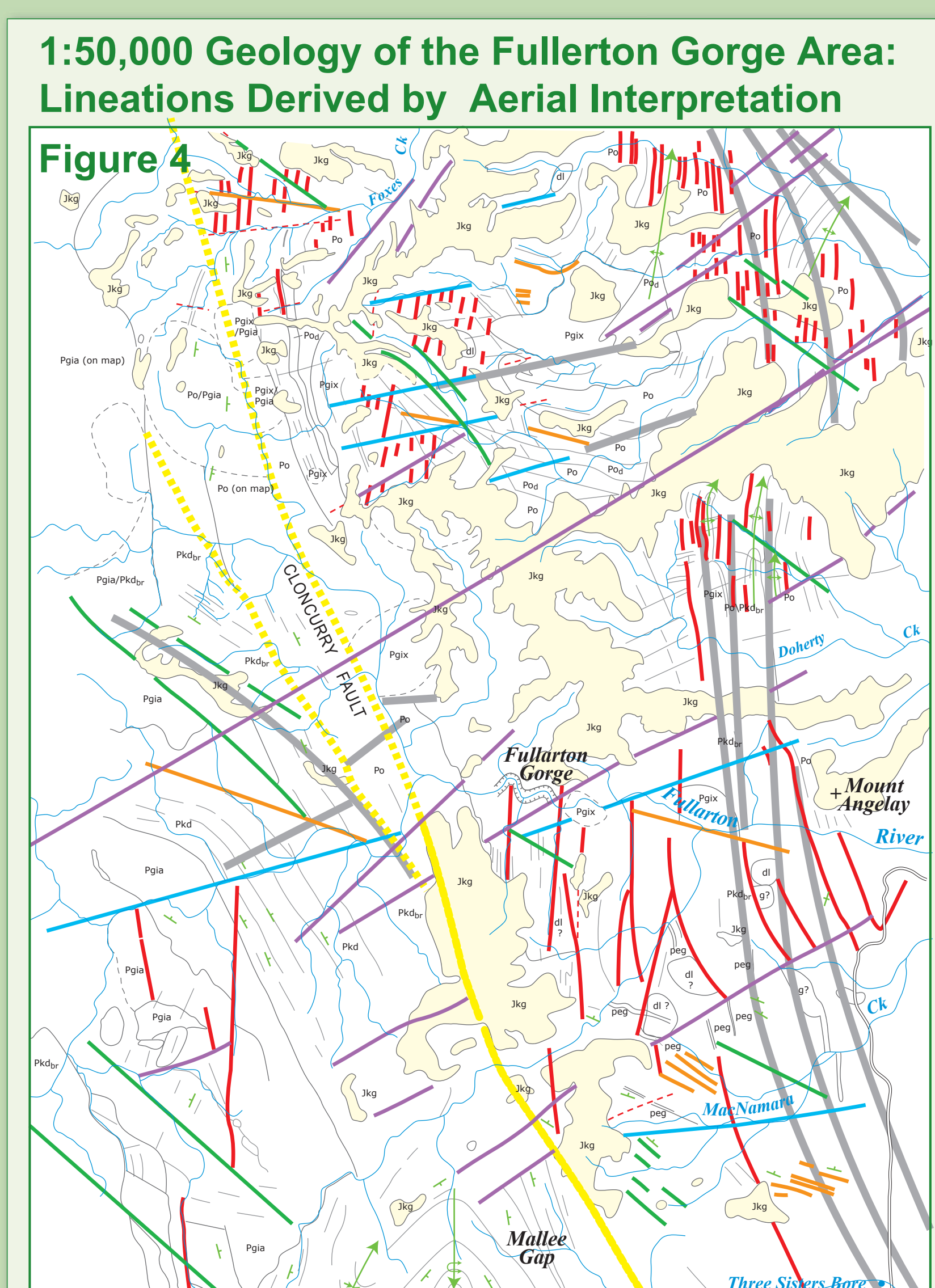
Breccia in the gorge
GR 04731 76534 ^

2. What can “worms” dig up?

< Figure 3 shows the Cloncurry Lineament (or worm) at an upward continuation (UC) of about 40 km and its geological context, in the Eastern Succession. *Lower levels of UC correlate well with the Soldiers Cap and Doherty Fm's contact* but in other places it's nature is obscured by late granitic intrusions and complex faulting. *While the so called "deep" lineament is well defined its near surface expression is clearly not.* This project will evaluate the nature of this contact via intensive field mapping, remote sensing and geophysical comparison.



*"What better place
to be a structural
geologist than a
gorge full of breccias
and mylonites" -TGB
< GR 04727 76536*



> Figure 4 Identifies surface lineations in the initial study area as a means of assessing the likelihood of tracing mylonitised zones along strike. The thick grey lines correspond to worms with a UC of 20 km, and align with lineations shown in red. *Mylonitised rocks have trends of NNW and NNE that only show up over short distances* due to the complex nature of late faulting. The lineament more probably defines a major contact of magnetically contrasting lithology e.g., the Soldiers cap / Doherty Formation contact. *It seems unlikely that the lineament is linked only to mylonitisation but also to spatially associated brecciation.* The lineament may also correspond to factors relating to granitoid intrusion or associated magnetite veining. A detailed study of the magnetic susceptibility of these units will constrain these potential sources of magnetic contrast.

Geoinformatics Exploration Australia are thanked for providing worms