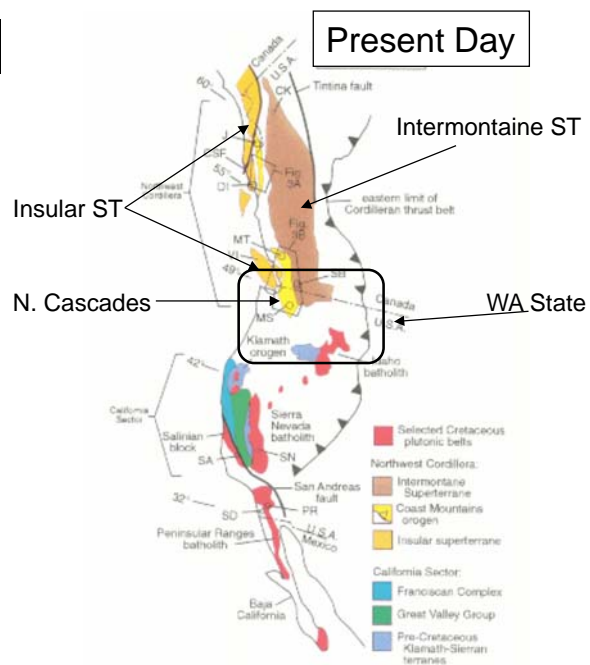


Modifying the Coast

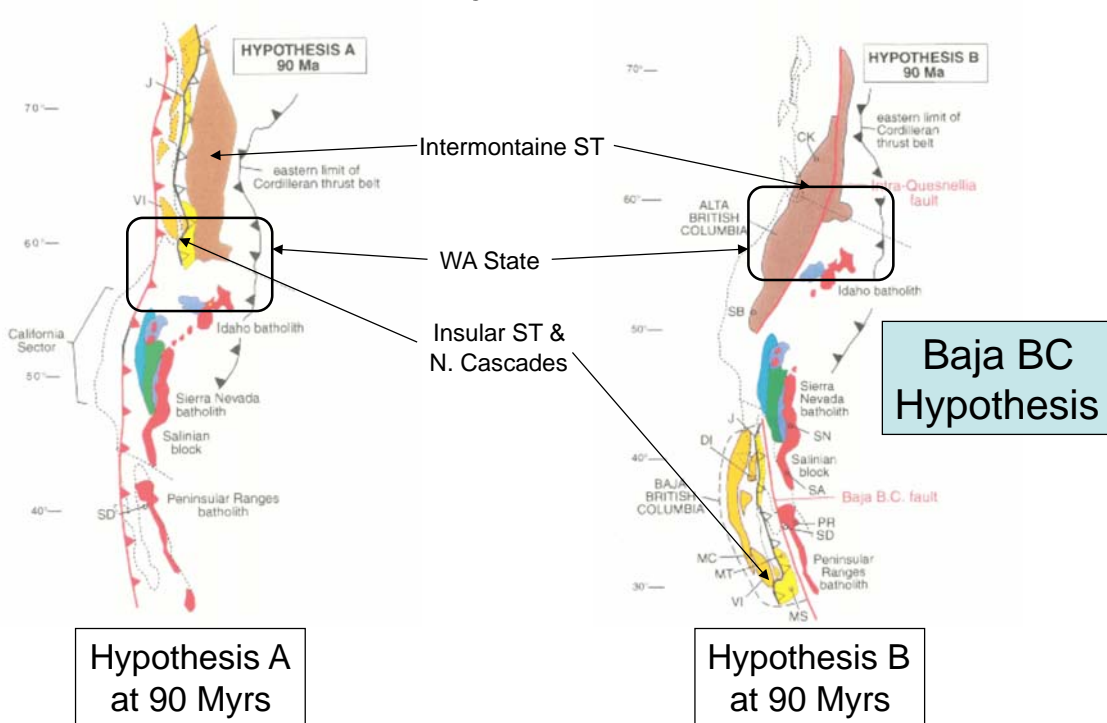
Transform Motion

Question still
in debate...

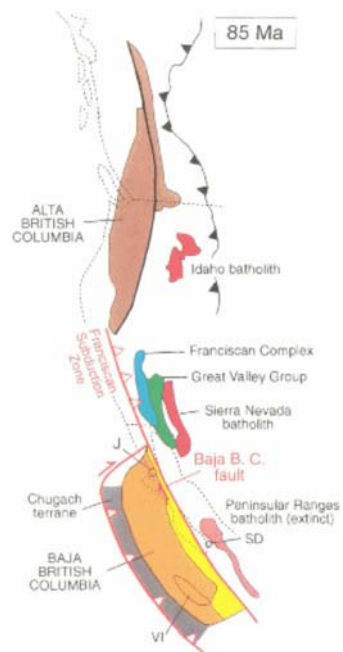
Where did the
Insular Terrane
actually accrete to
North America?



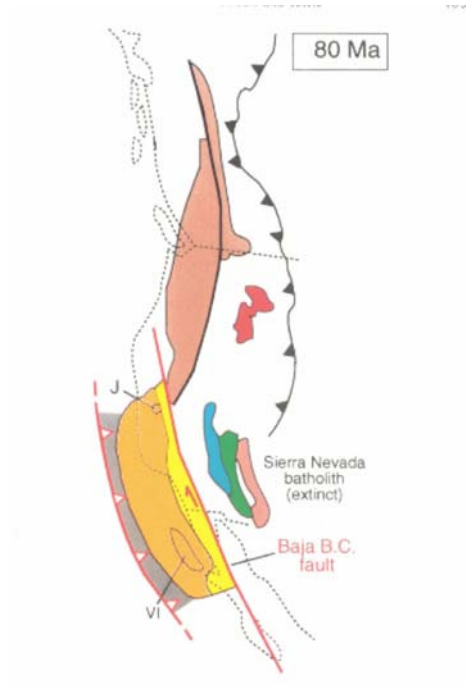
Two Hypotheses



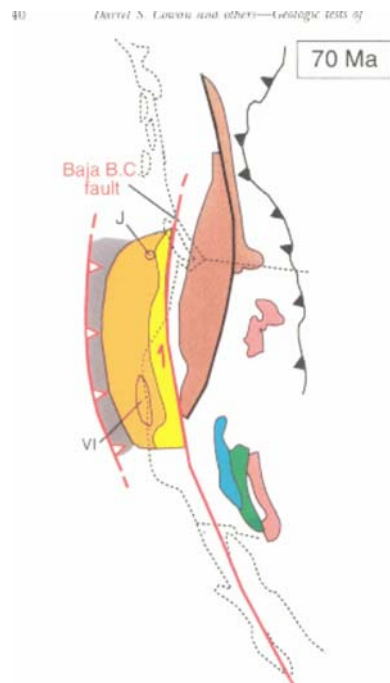
Baja BC 85 Myrs



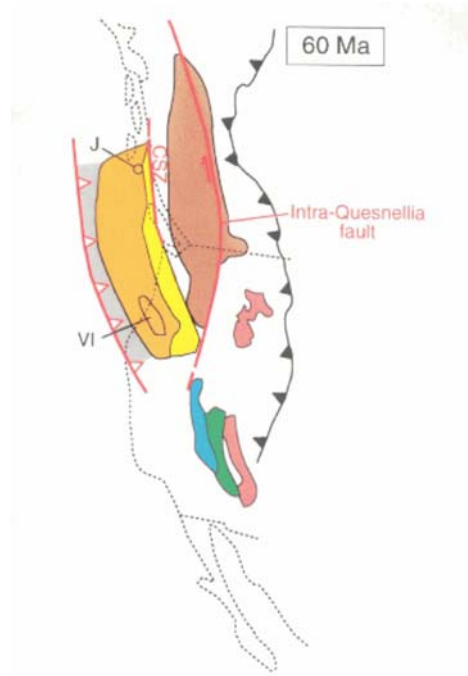
Baja BC 80 Myrs



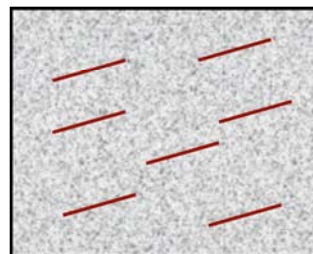
Baja BC 70 Myrs



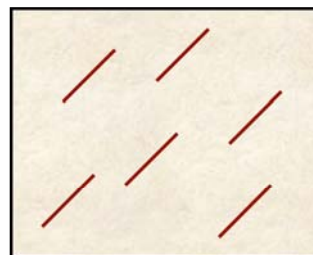
Baja BC 60 Myrs



Main Evidence for Baja BC Paleomagnetism of Mt. Stuart Batholith



Mt. Stuart
90 Myrs
30° inclination

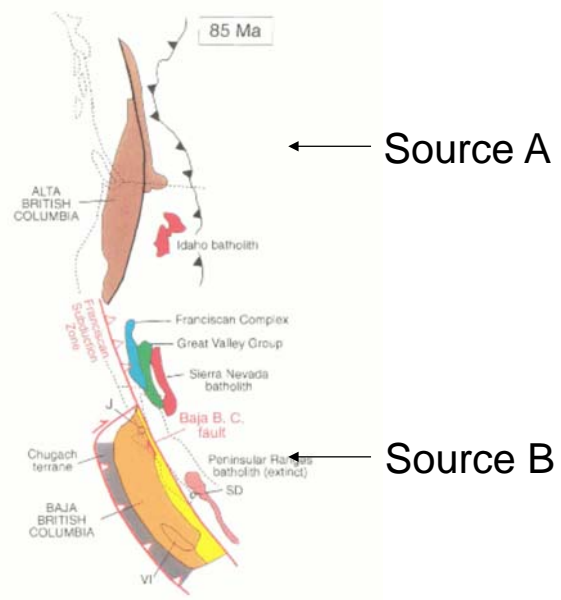


Eocene Volc.
Rocks
<55 Myrs
45° inclination
(Modern lat.)

Other Evidence: Sediment Provenance

What do the
overlapping
sedimentary rocks
tell us?

Inconclusive -
needs more study



Other Evidence: Fossils

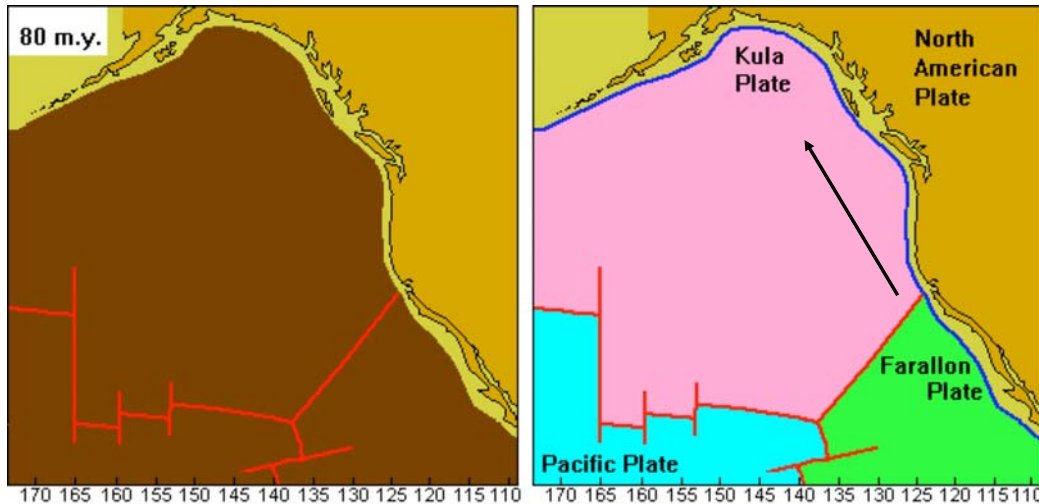
What do the
fossils tell us?

New study -
not yet
published

Supports Baja BC



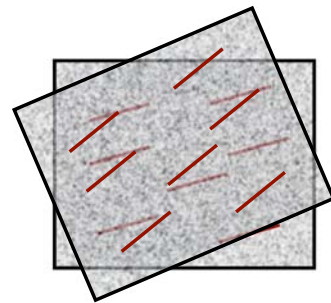
Other Evidence: Plate Tectonic Reconstructions



Supports Baja BC

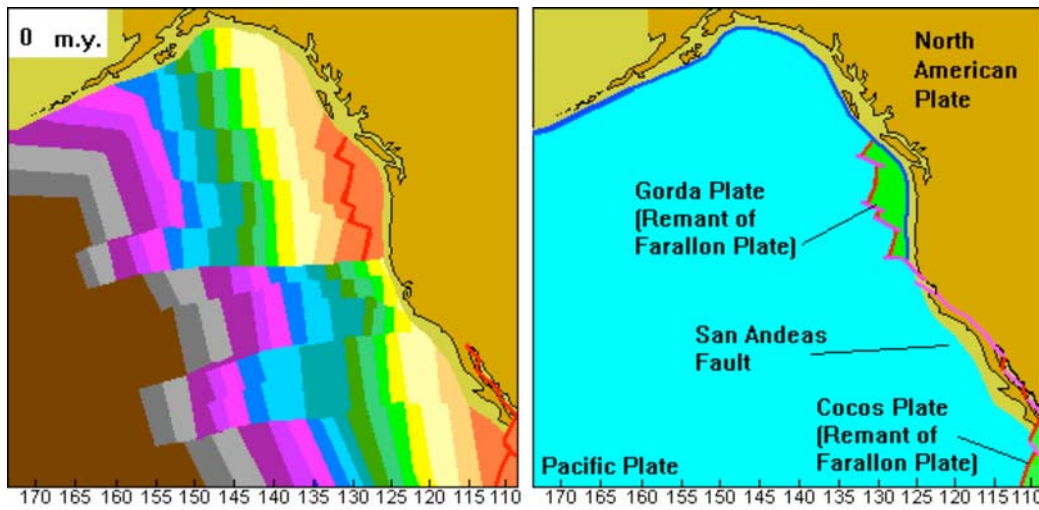
However - there are
problems...

1. No major faults discovered
2. Sedimentary rocks around the batholith are tilted...could it be tilted, too?



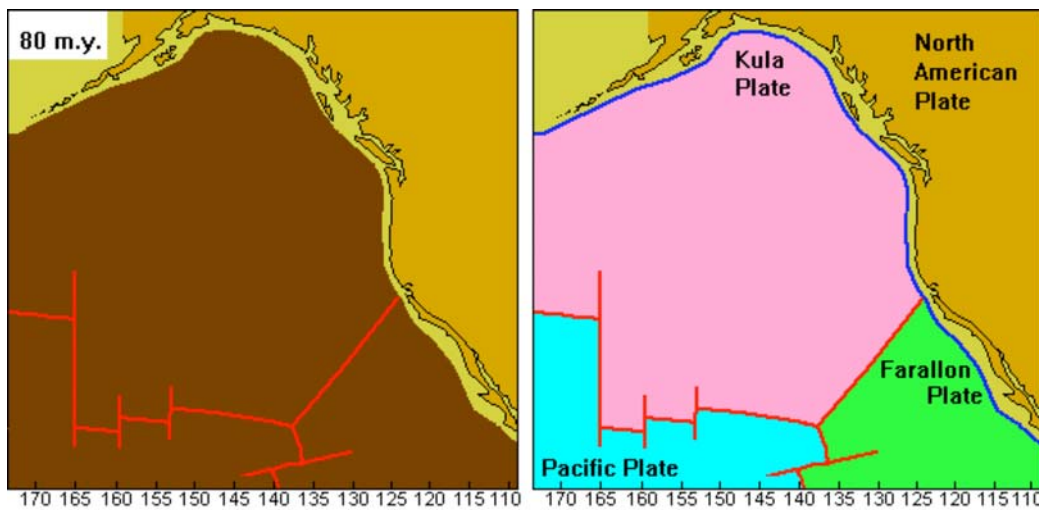
The Question Remains Unanswered...

Post-Insular Plate Tectonics

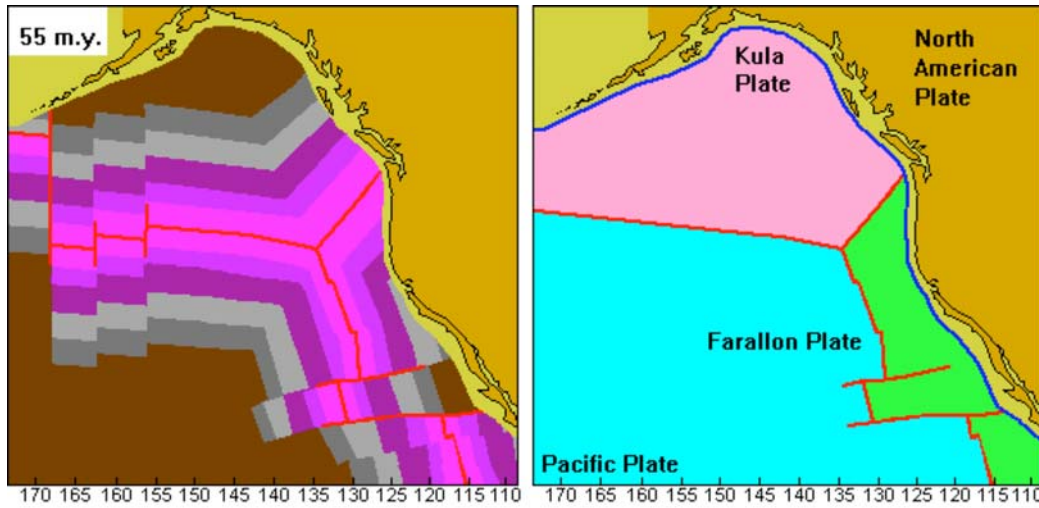


Graphics by Steve Dutch - U of Wisconsin

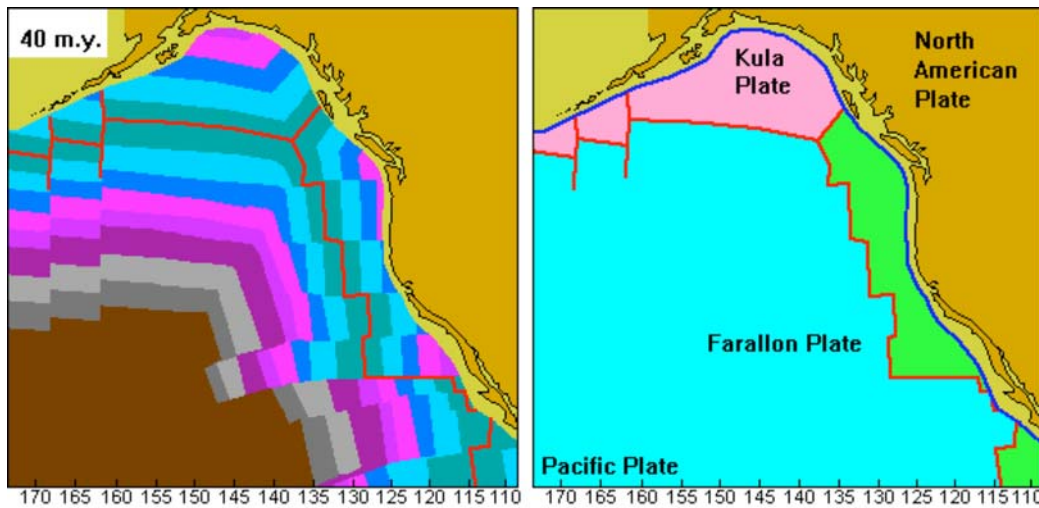
80Myr: Formation of the Kula Plate



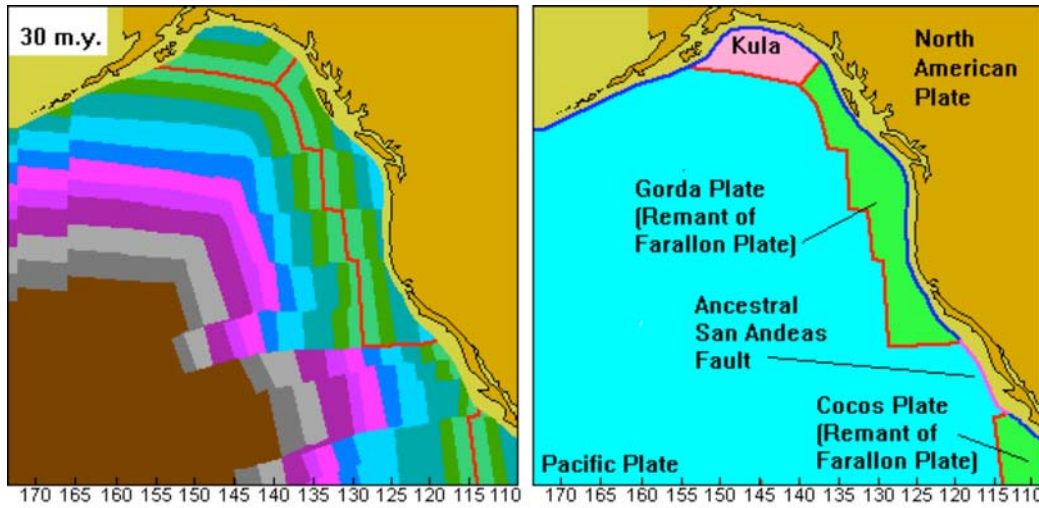
55 Myrs



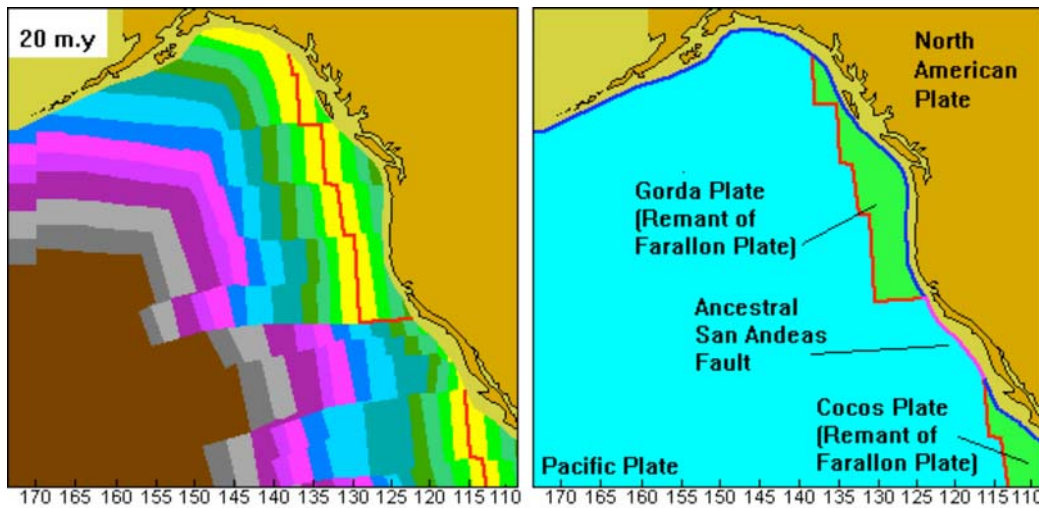
40 Myrs



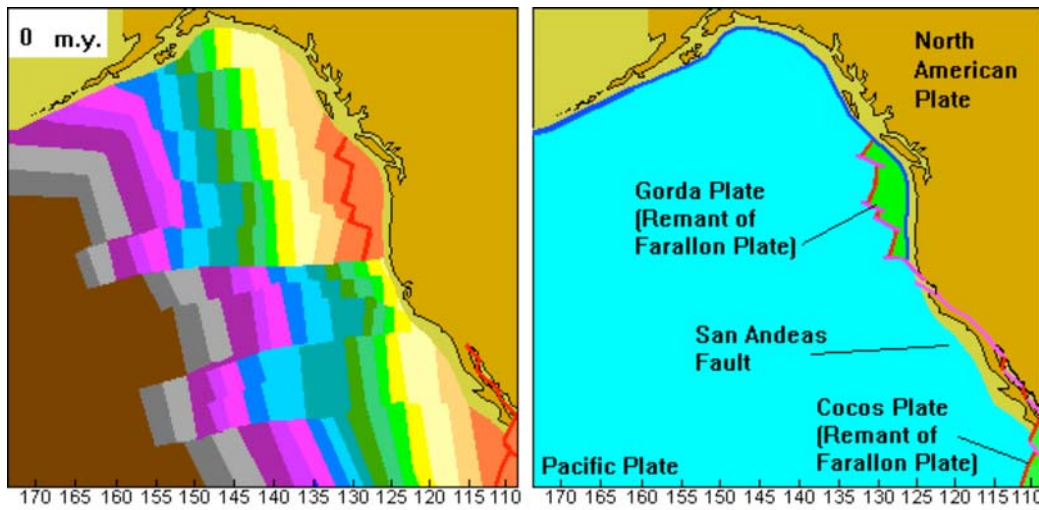
30 Myrs



20 Myrs



Present



Major Events of the Cenozoic

