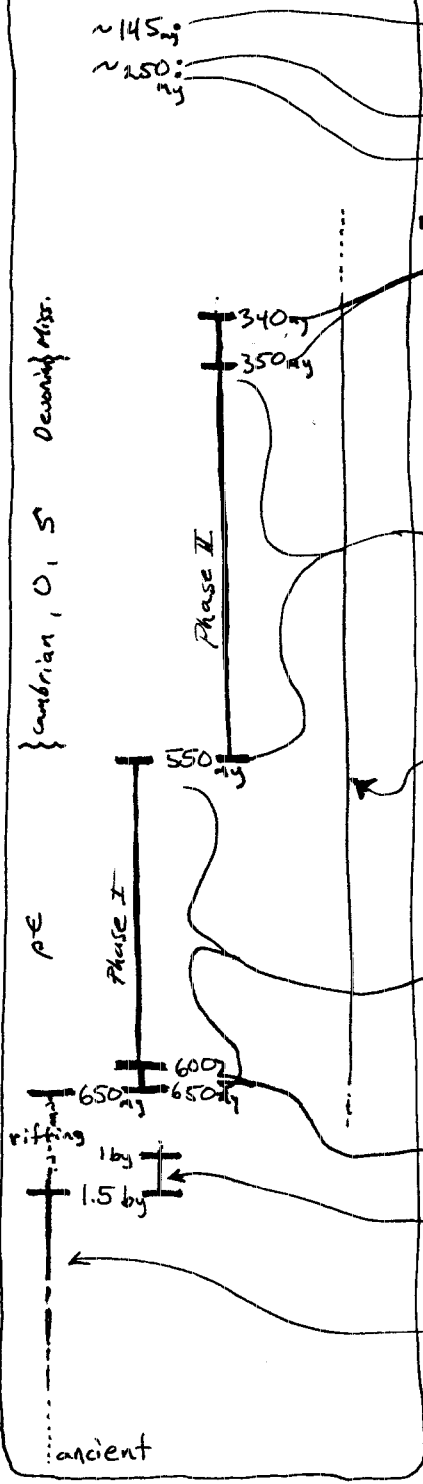


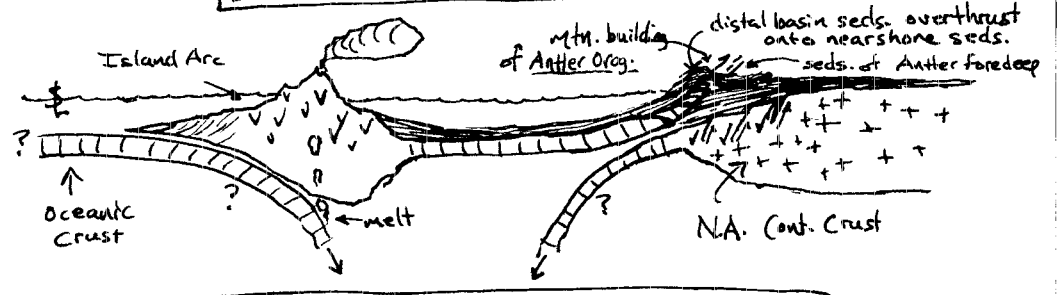
TIMELINE

EVENTS

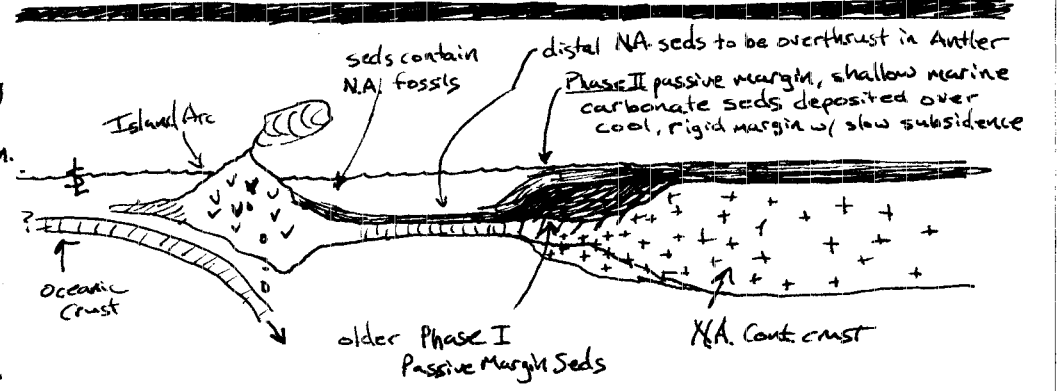
CROSS-SECTIONS



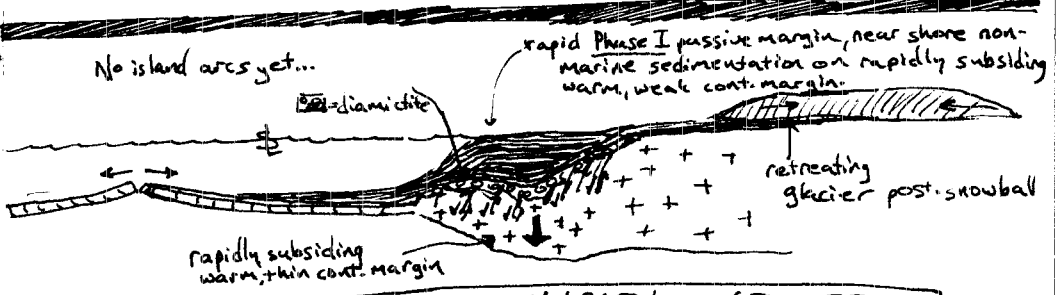
- ~1450_{Ma}: left-lateral displacement of passive margin truncates facies continuity in Idaho.
- ~250_{Ma}: left-lateral displacement of passive margin truncates facies continuity in SW Calif.
- oldest age of oceanic crust in ocean basin, ∴ oceans transient, continents record.
- Antler Orogeny!** continental margin switches from passive to Subduction as island arc impinges on N.A., driving W dipping subduction and east-vergent thrusting of deep H₂O shales + silts over passive margin sed. Topography created by thrust deposits sed in flexural basin (foredeep), thus switching sed. delivery direction.
- Shallow marine sedimentation on passive margin**, subsidence rate and sedimentation rate slow as rifted margin cools, becomes more rigid. Still thickening to west. Mostly carbonate sed. Changes in δ move shoreline well inland at times, building strat. w/ dif. depo. environs.
- Island Arc Volcanism:** active over extended period. Island Arcs local to NA as they share the same fossil assemblage as in continental NA sed. from the same time. None accreted during period, though one was involved in the Antler Orogeny (above).
- Post-rift non-marine sedimentation on rapidly subsiding, weak, warm passive margin.** Sed. thicken rapidly to the west (up to 10 km!). Hinge line near present Las Vegas. Sedimentation kept pace w/ subsidence, and sed. are consistently shallow, nearshore facies.
- First sediments on new passive margin are diamictite w/ glacial origin (Snowball E.)**
- Belt Group:** THICK sed. deposited on weak, thin crust, possibly in early failed rift. (15 km thick!)
- Precambrian (p.e.) basement of NA records history of continent rifting and assemblage with younger rocks in sutures between older continental blocks.** These younger sutures were ancient mtns. but are now eroded away to flat!



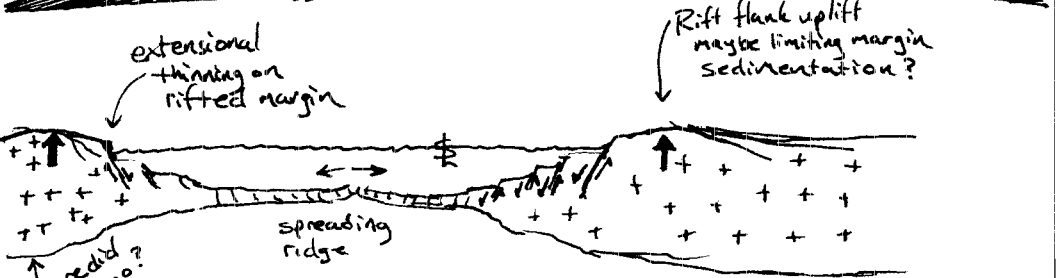
ANTLER OROGENY ~ 350-340 Ma



PHASE II PASSIVE MARGIN ~ 550-350 Ma



PHASE I PASSIVE MARGIN ~ 650-550 Ma



CONTINENTAL RIFTING ~ 1.5 by - 650 Ma