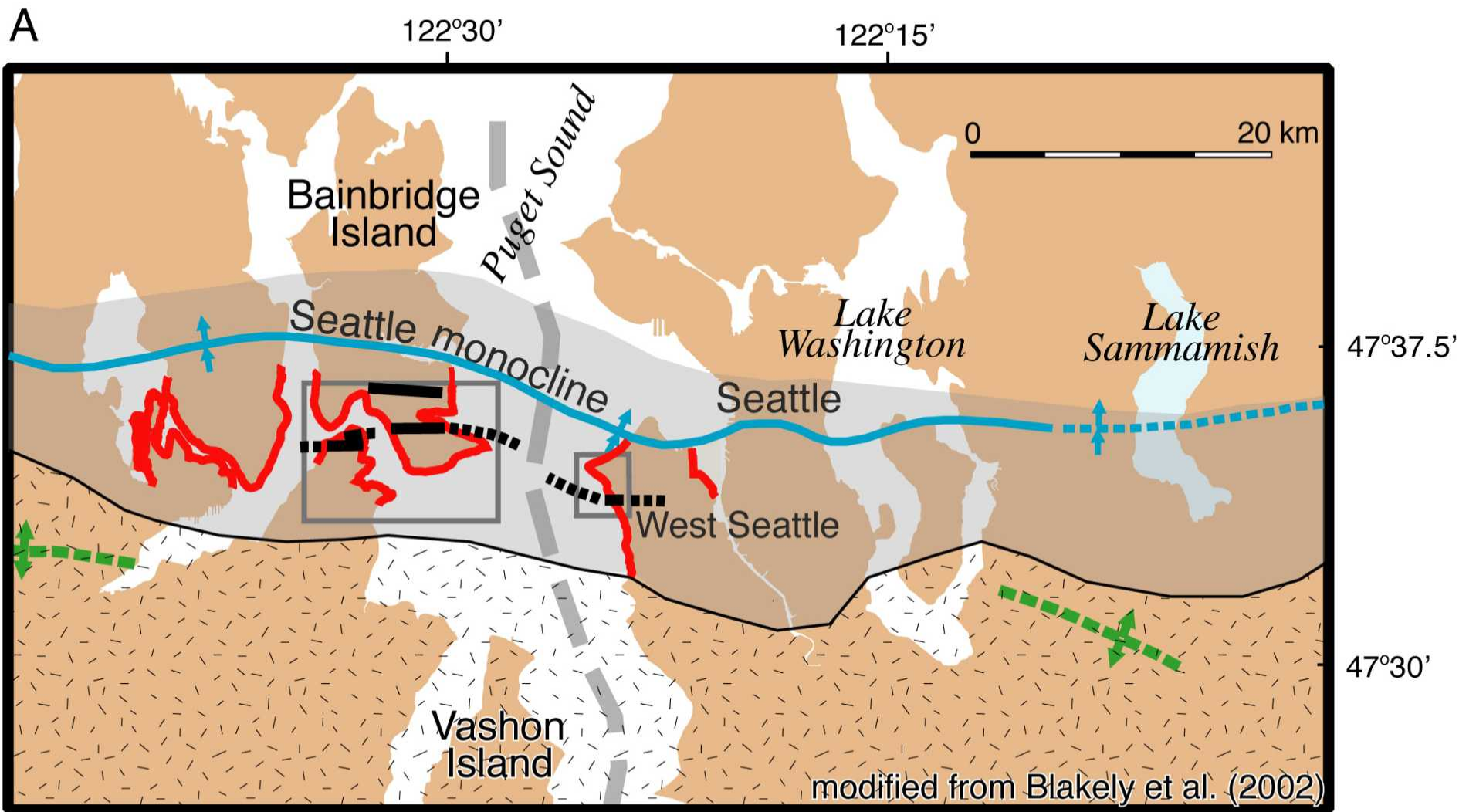



Earthquakes generated from bedding plane reverse faults of the Seattle fault zone.





 Uplifted shore platform

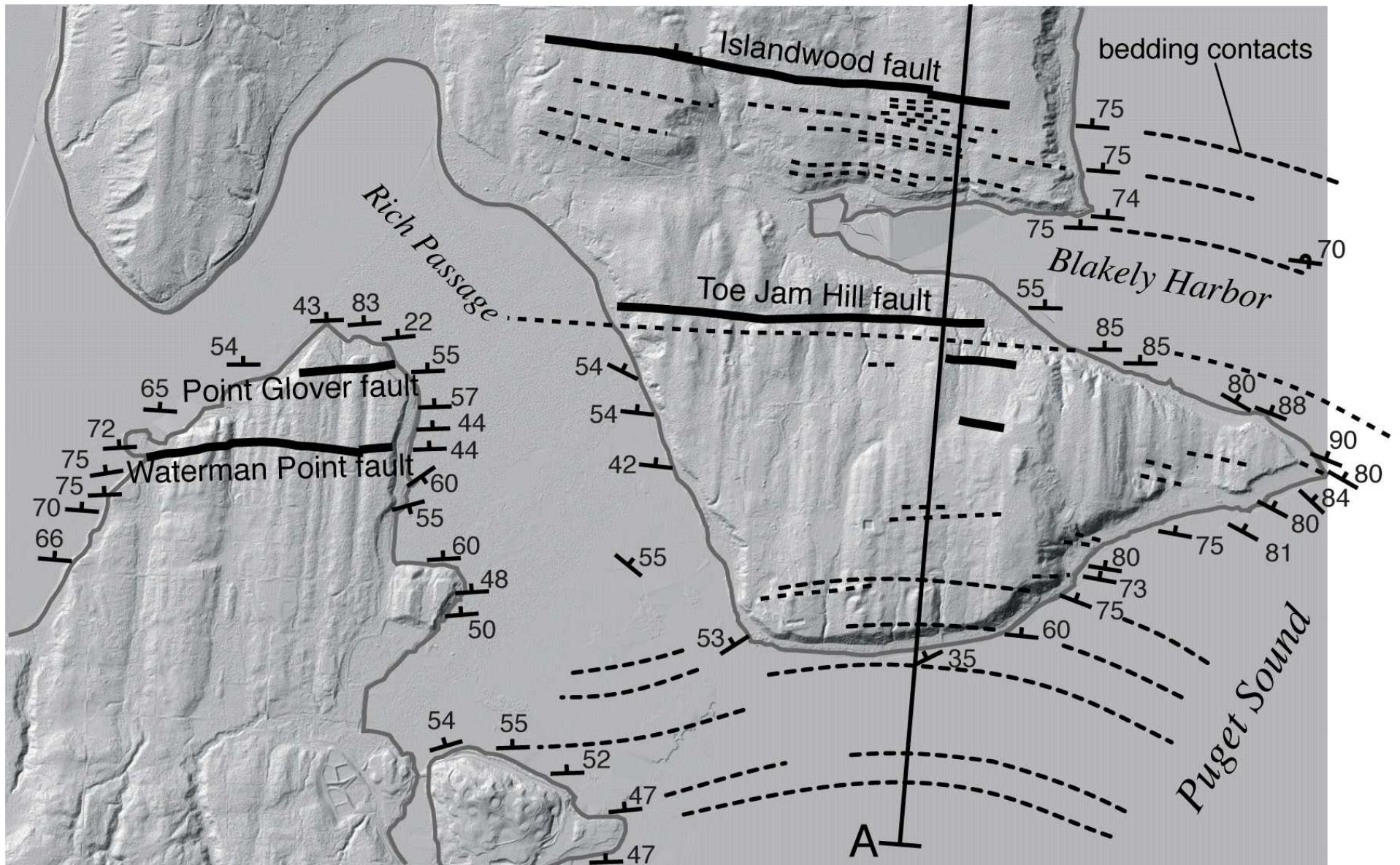
 North-side-up, bedding-plane reverse fault

 Seattle fault zone

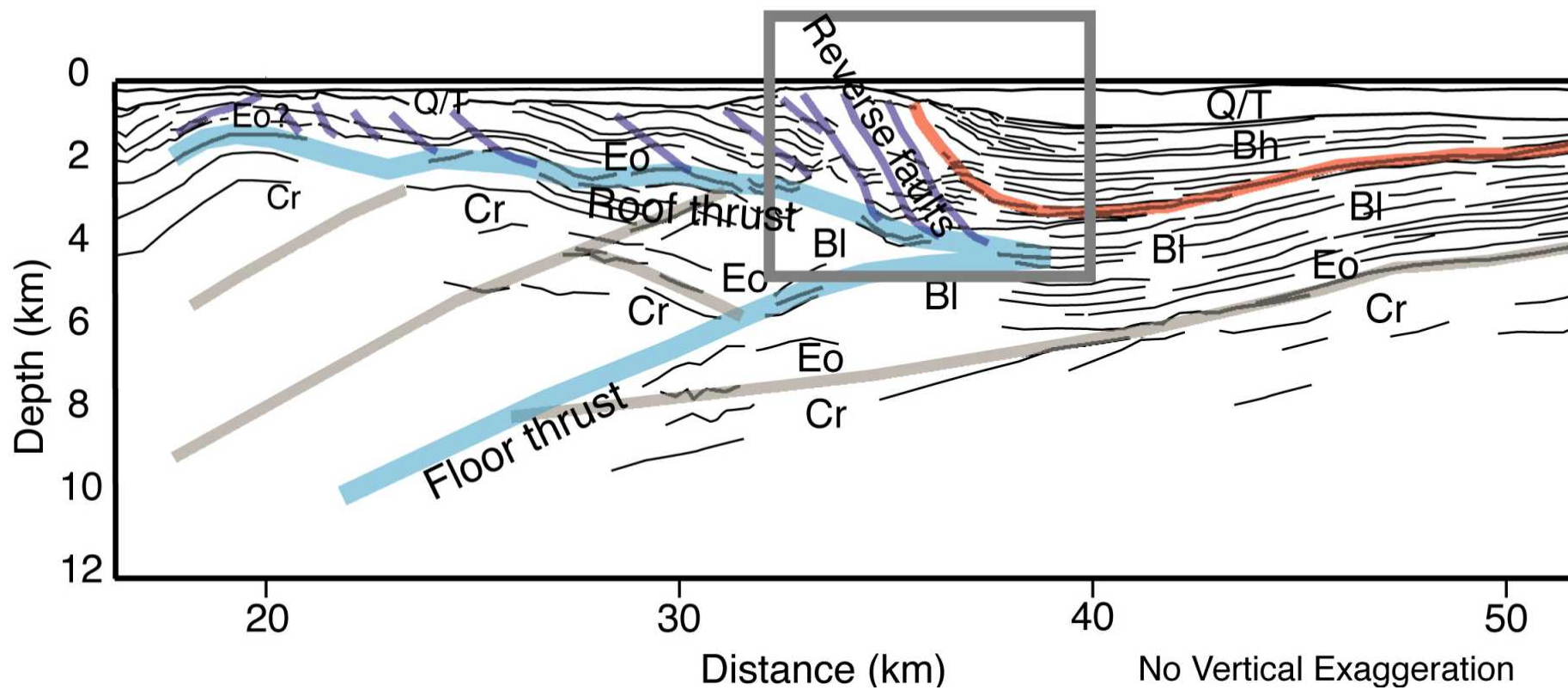
 Seismic line

 Anticline in basement rock

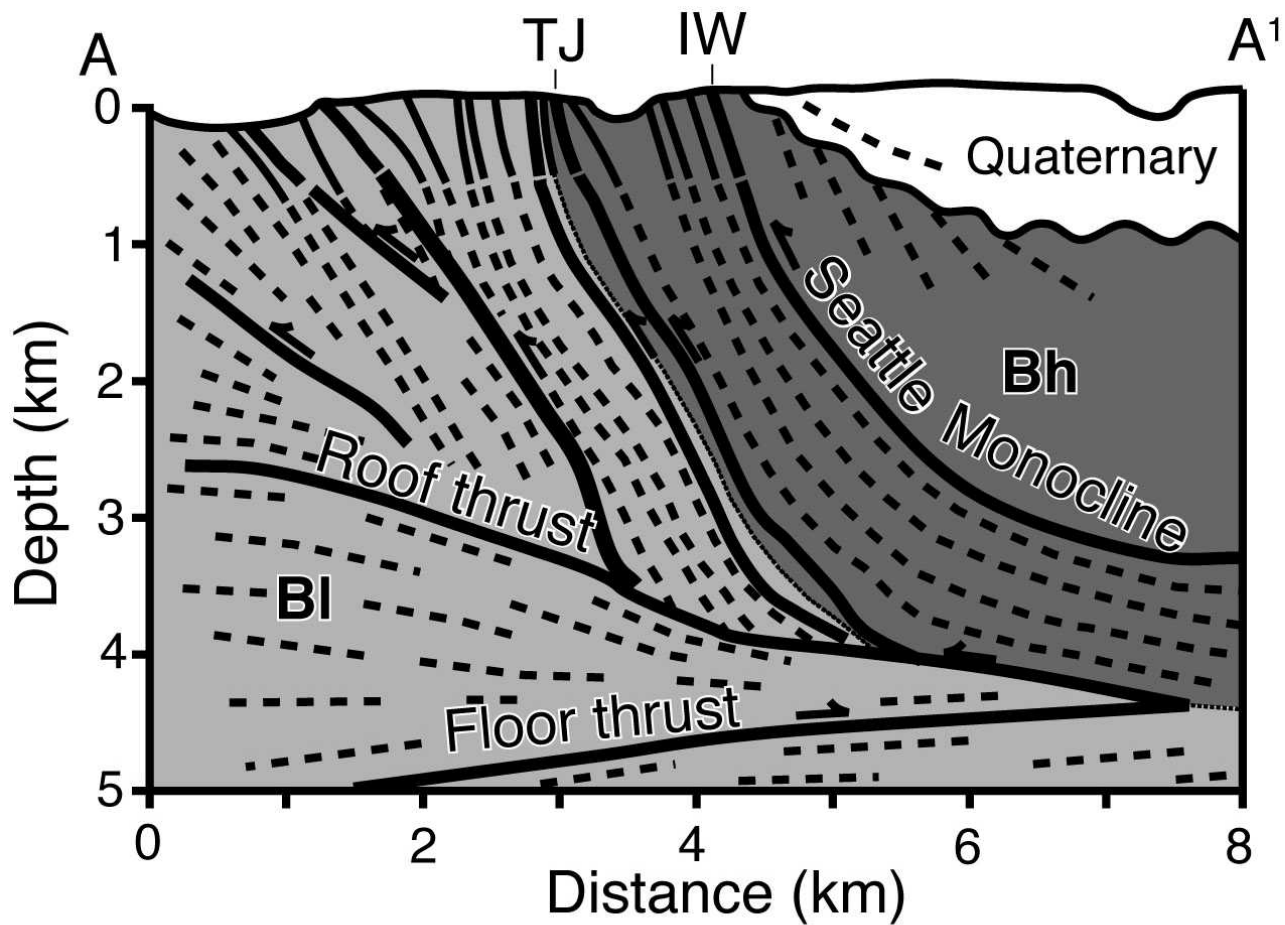
 Crescent basement at or near surface



Strike and dip measurements from Fulmer (1975) and McLean (1977)



Interpretation from Brocher et al. (2004)



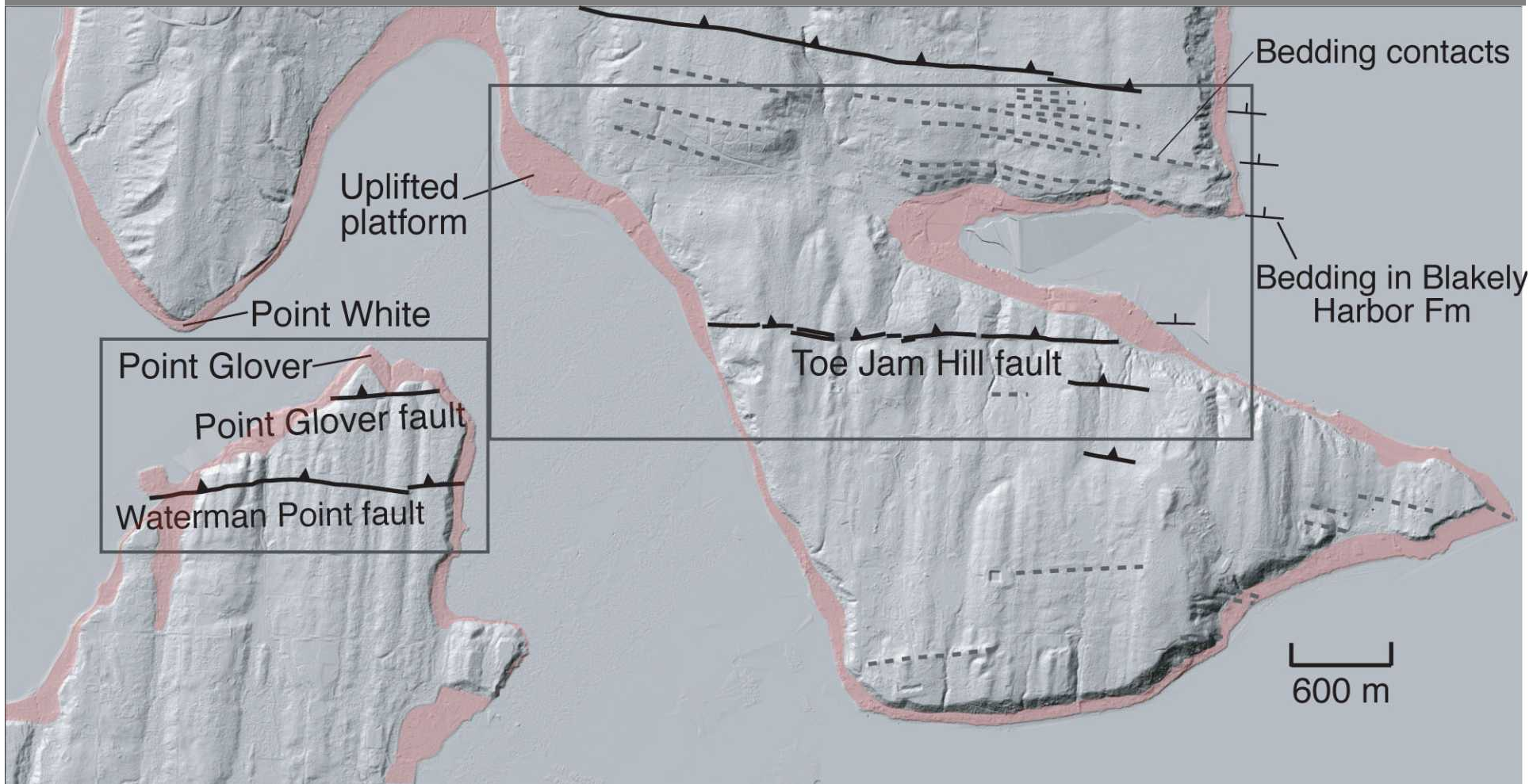
Bh, Blakely Harbor Formation Bl, Blakeley Formation

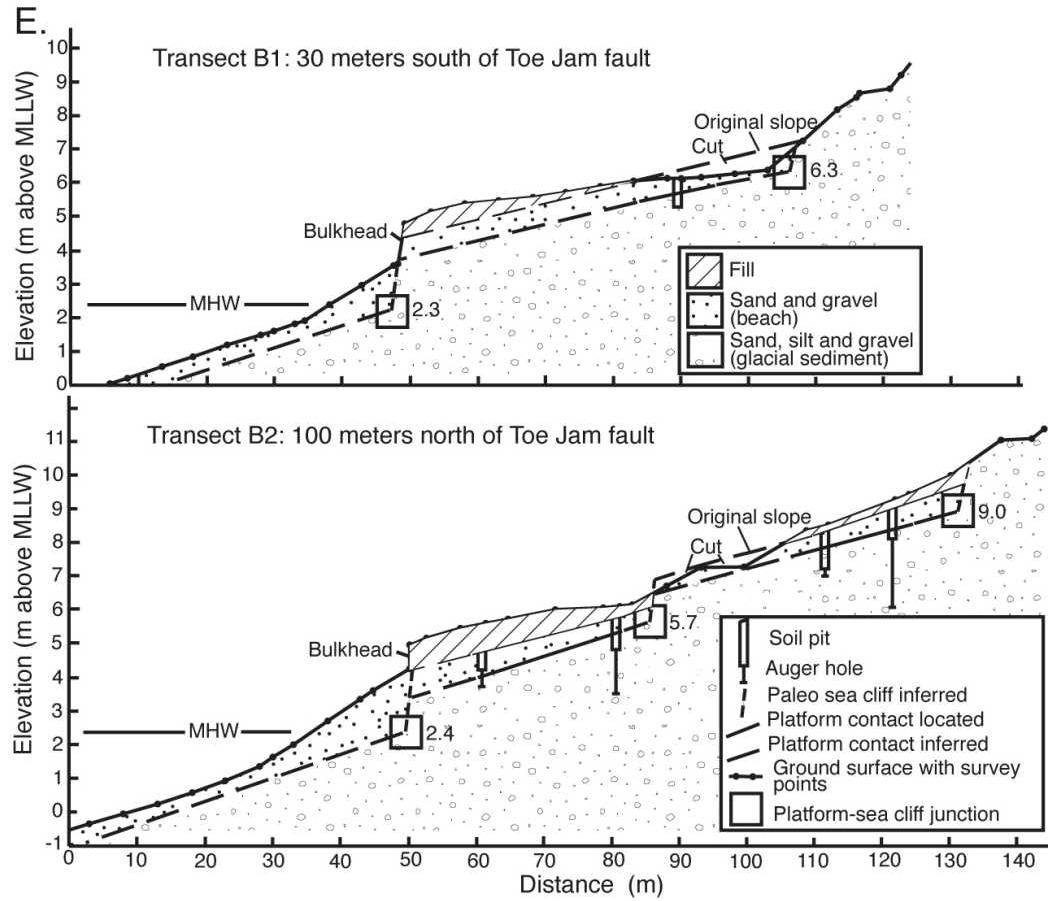
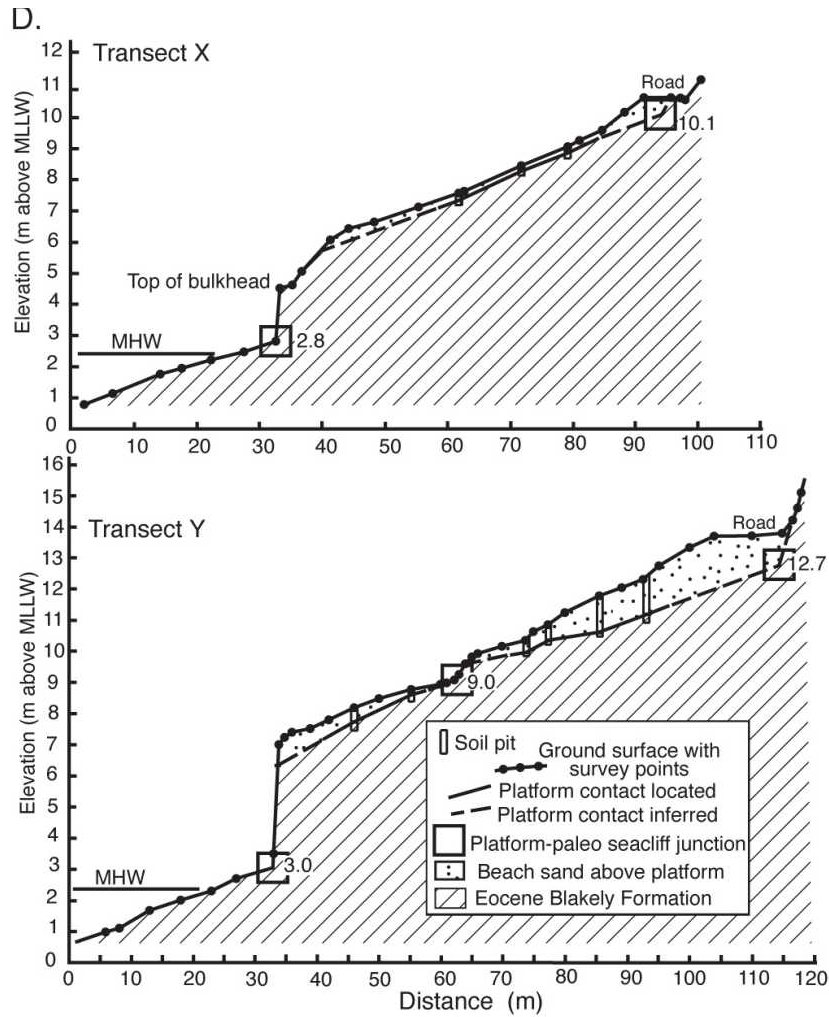
— Measured dip from Fulmer (1975) and McLean (1977)

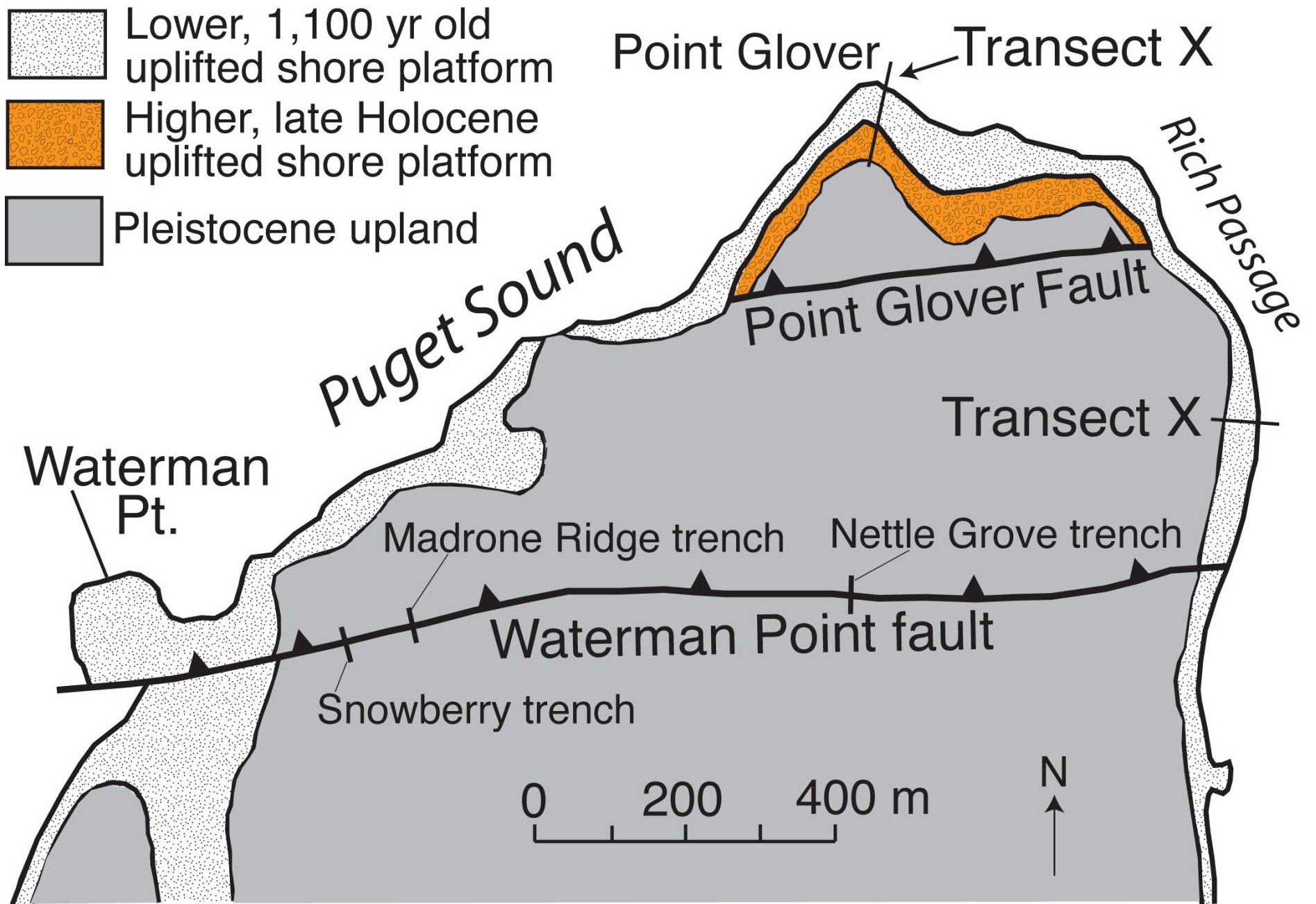
- - - Inferred dip (Brocher et al., 2004)

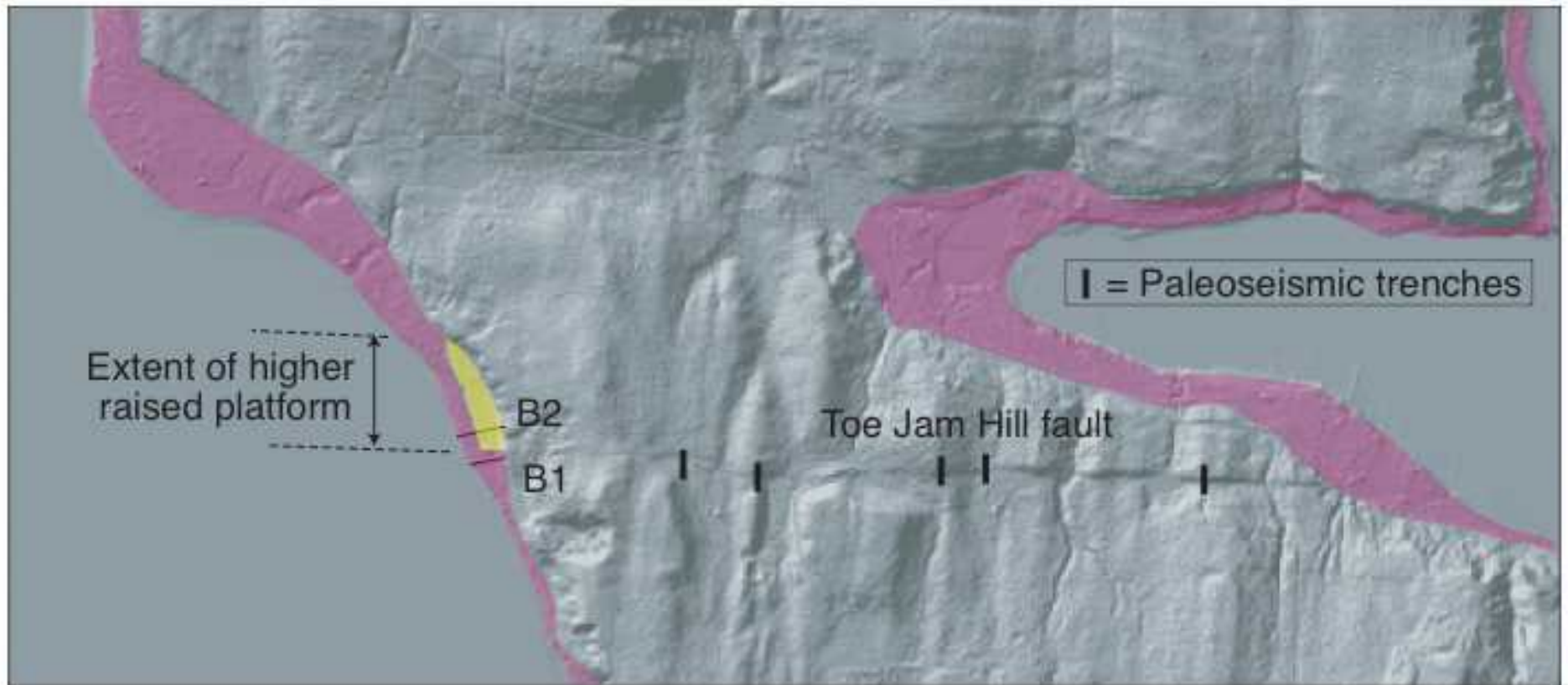
~ Unconformity (Brocher et al., 2004)

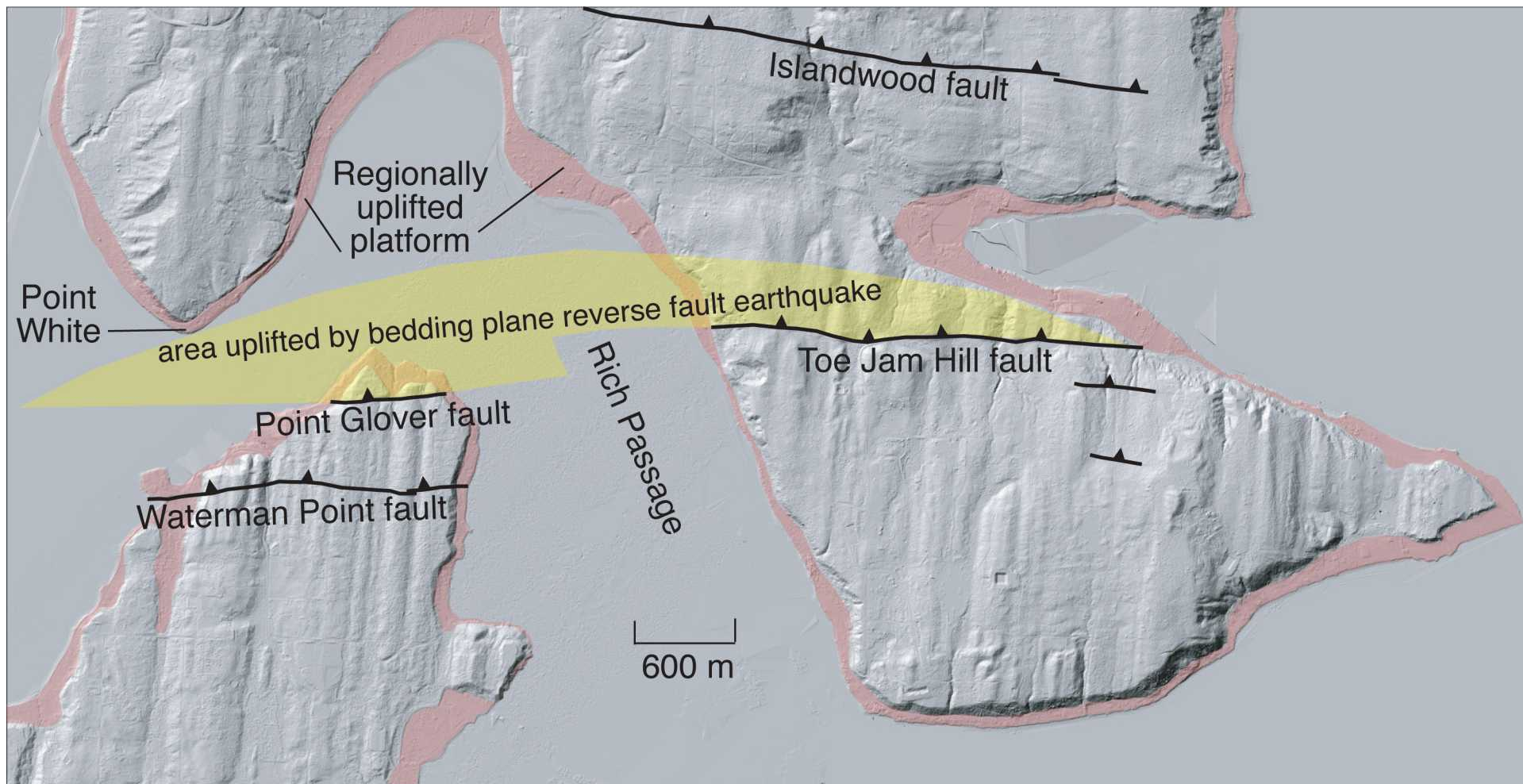
— Inferred fault (Brocher et al., 2004)

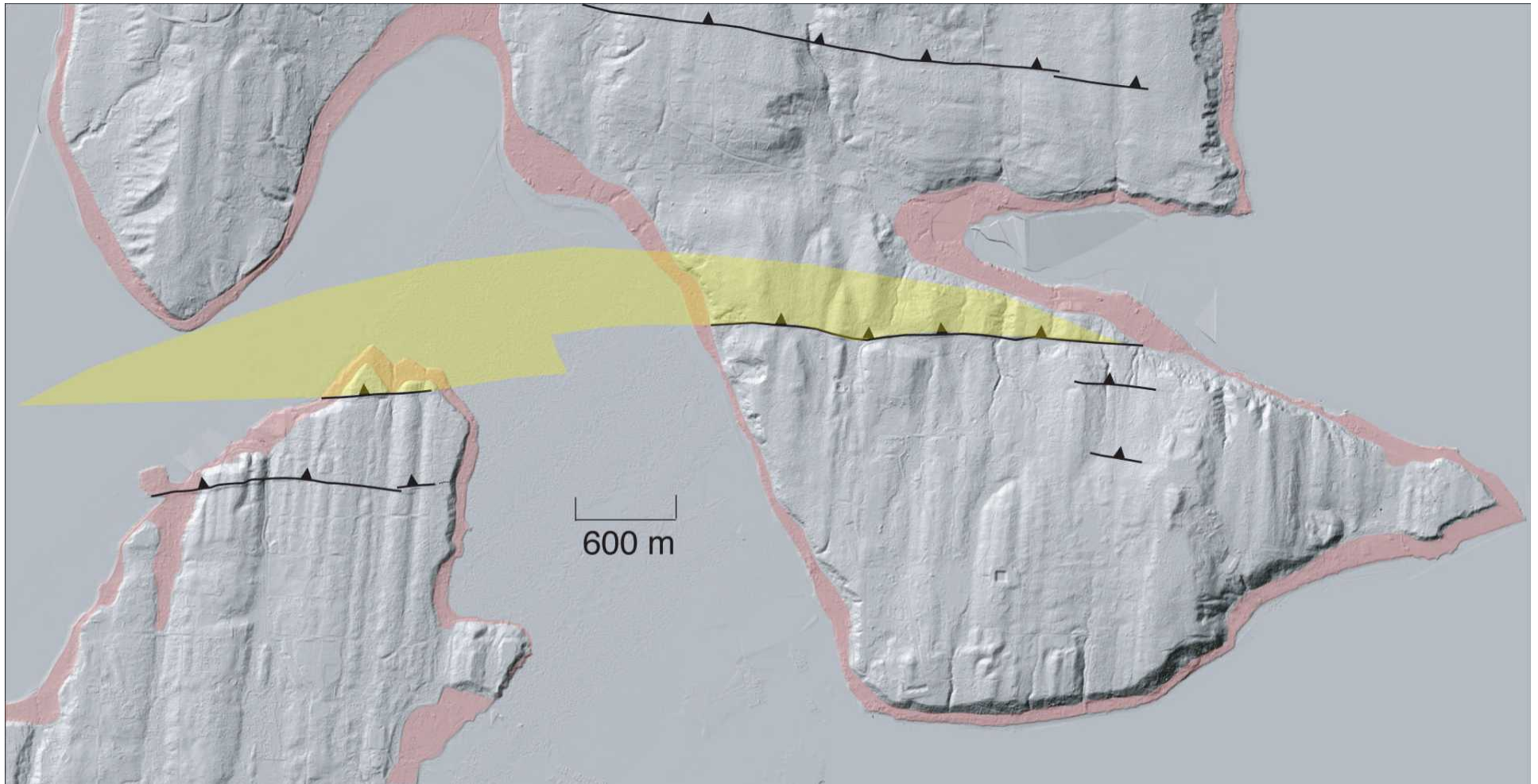








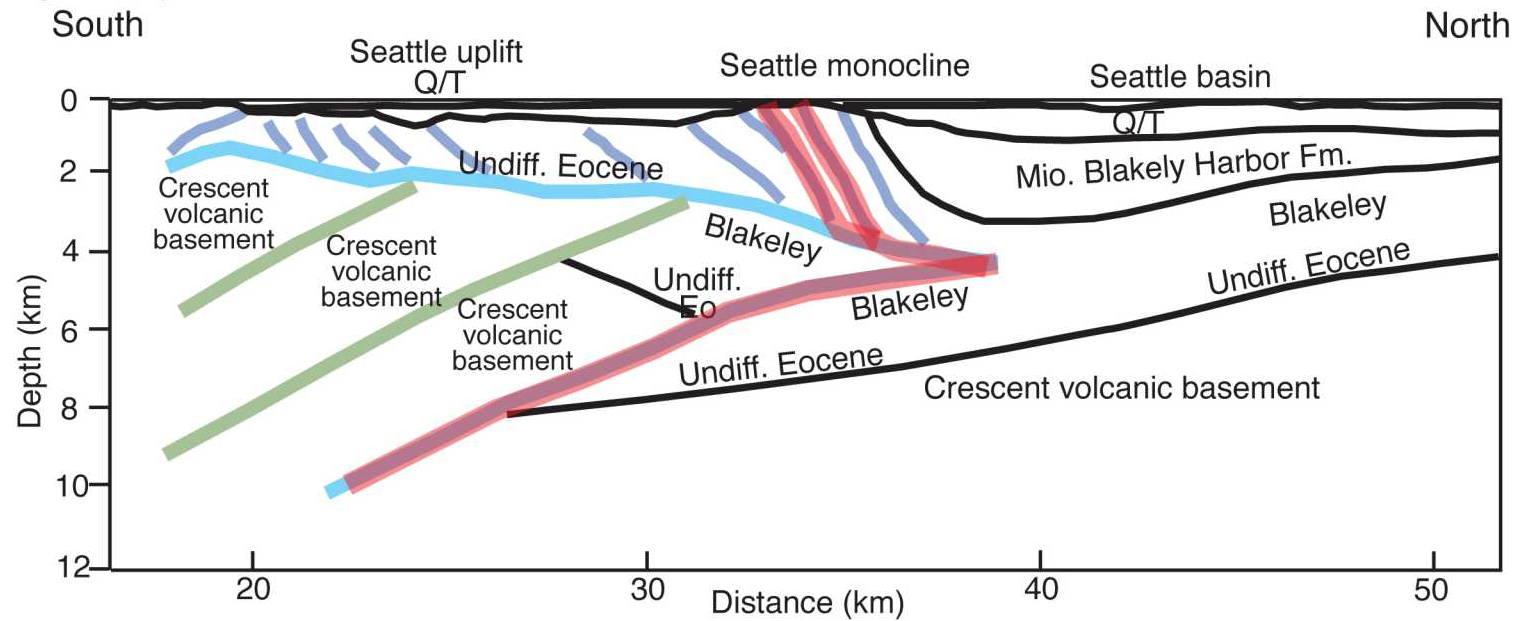




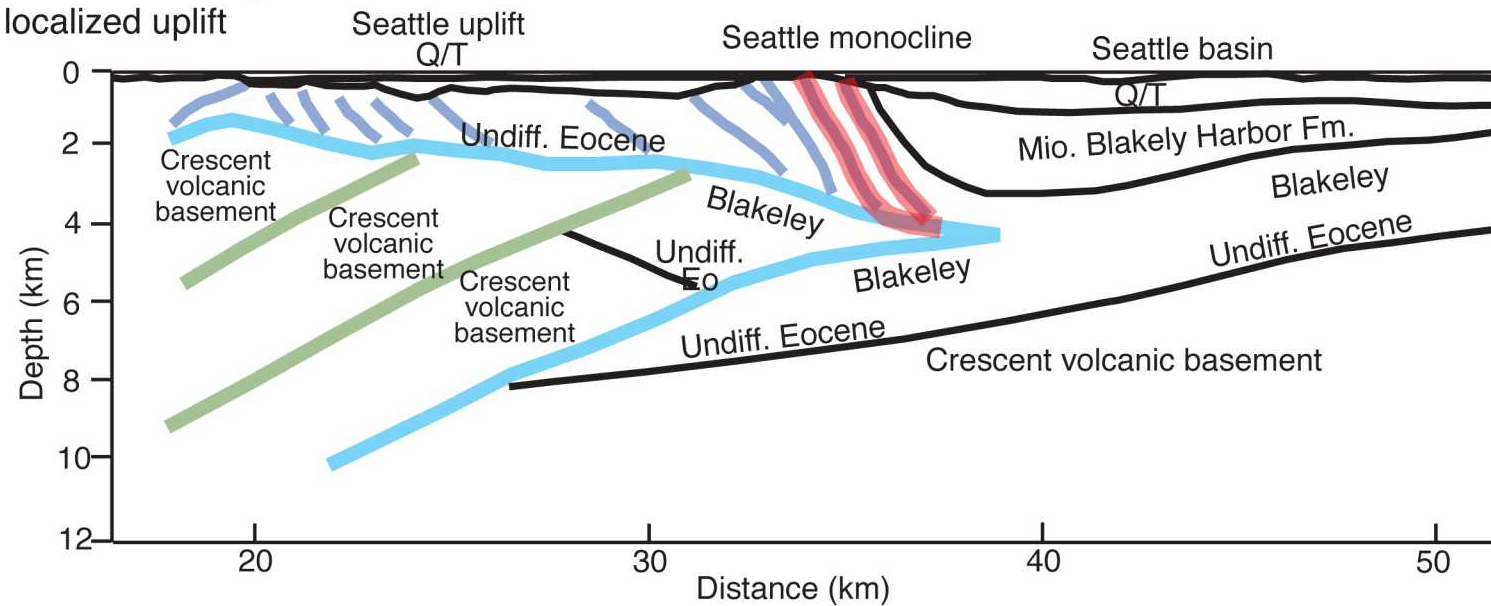
Yellow = Hypothetical bedding plane reverse fault rupture;
80 degree rupture patch projected to surface; 7 km long;
maximum of 3.5 m slip, average slip of 2.0 m:
~ 2,000 to 3,000 yr ago.

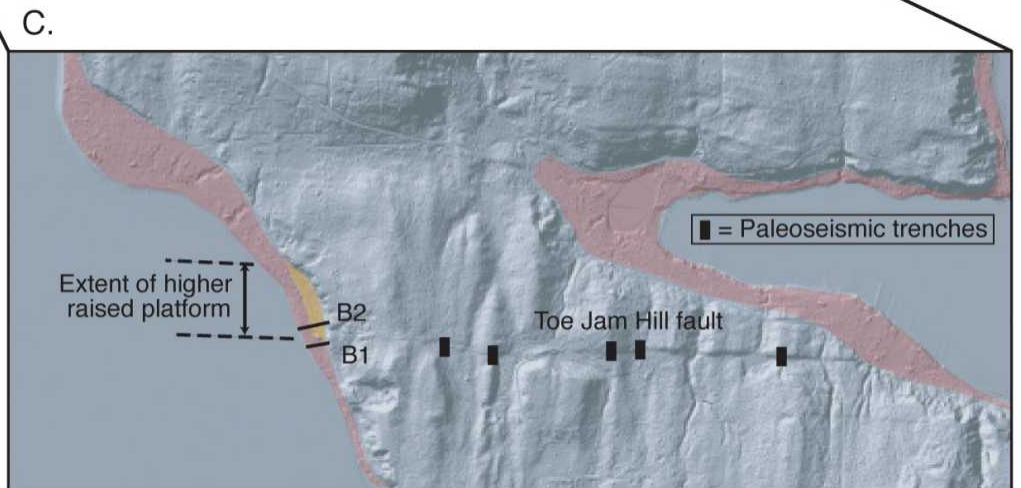
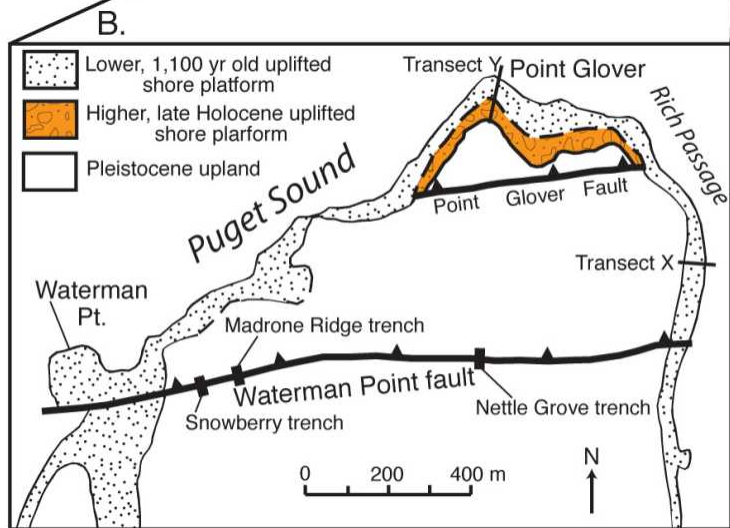
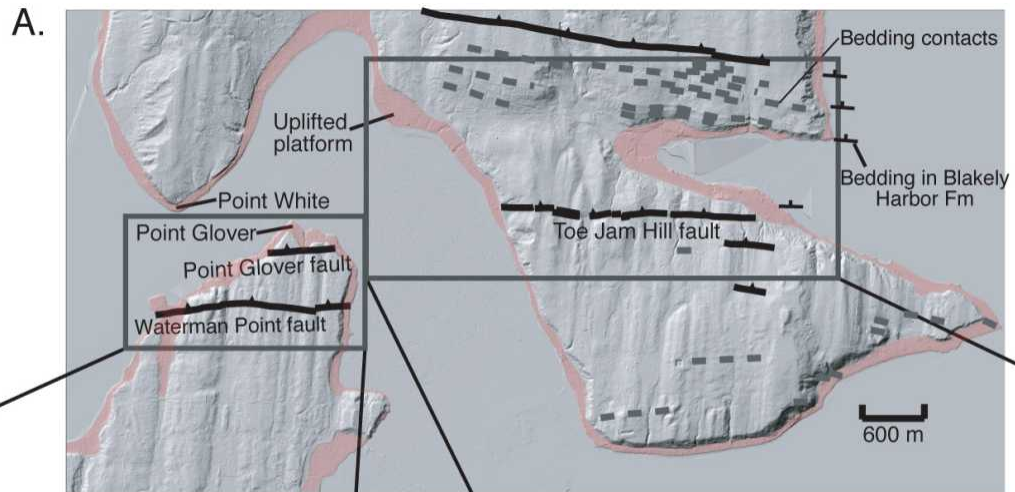
Pink = regionally uplifted coastline: 1100 yr ago

Floor thrust rupture:
regional uplift



Reverse fault rupture:
localized uplift





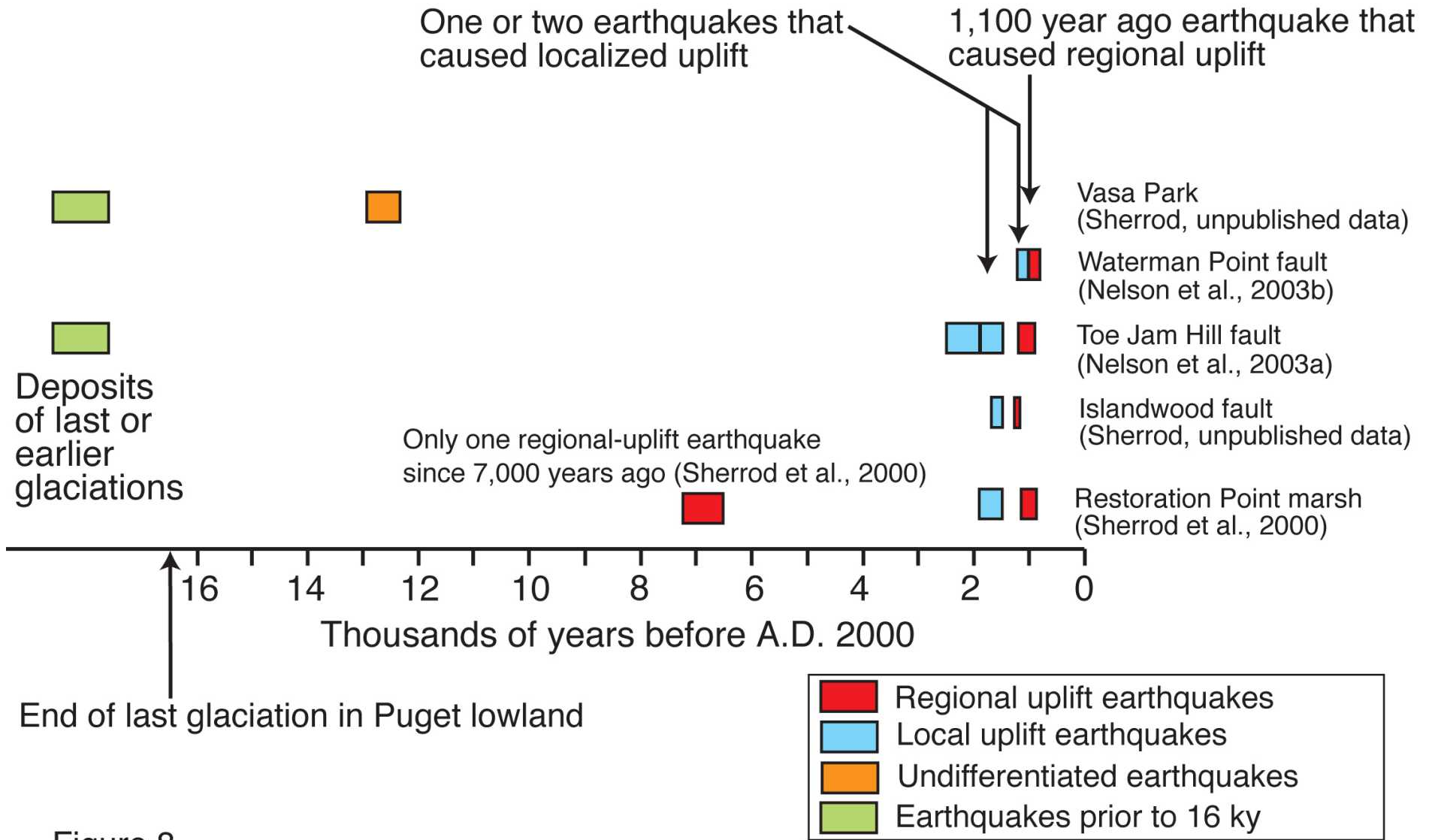
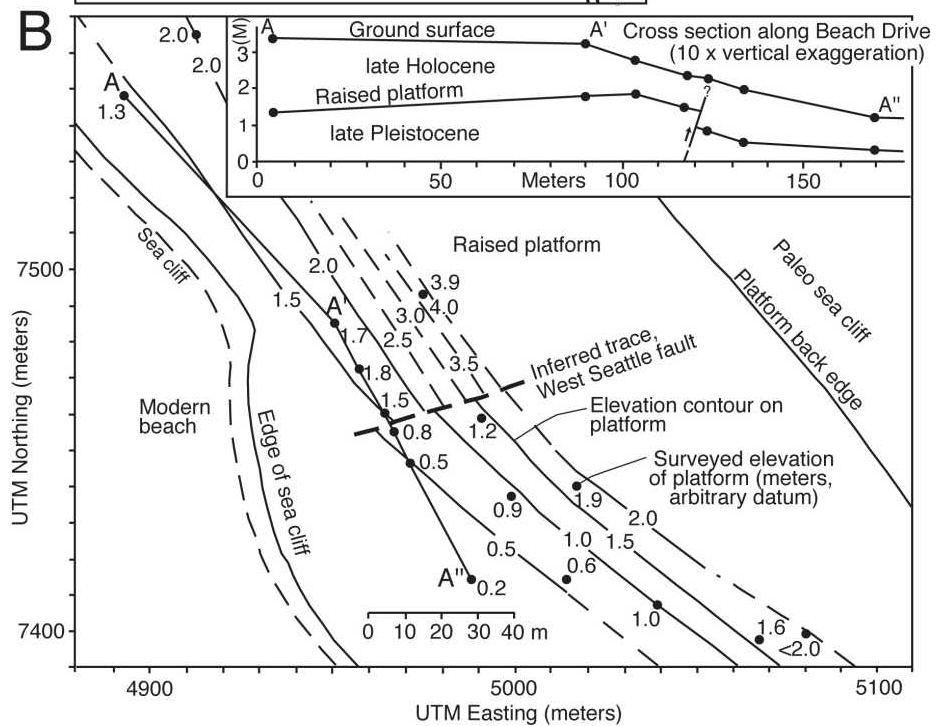
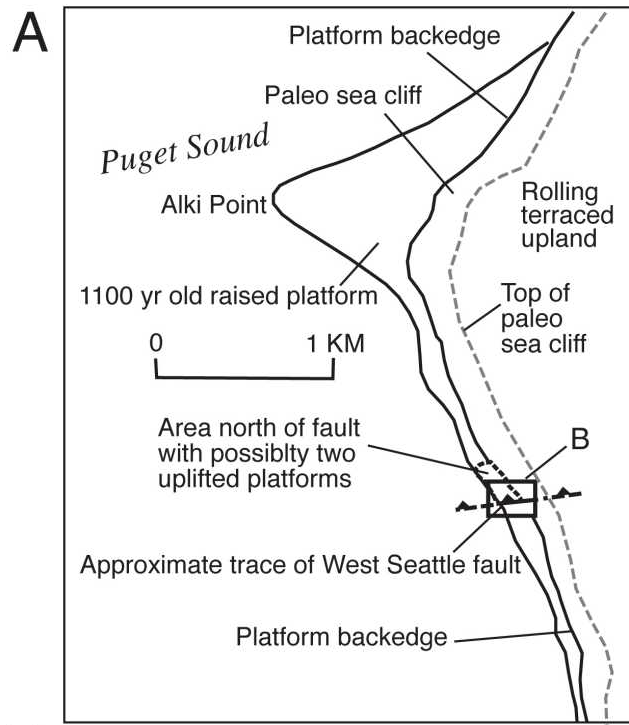
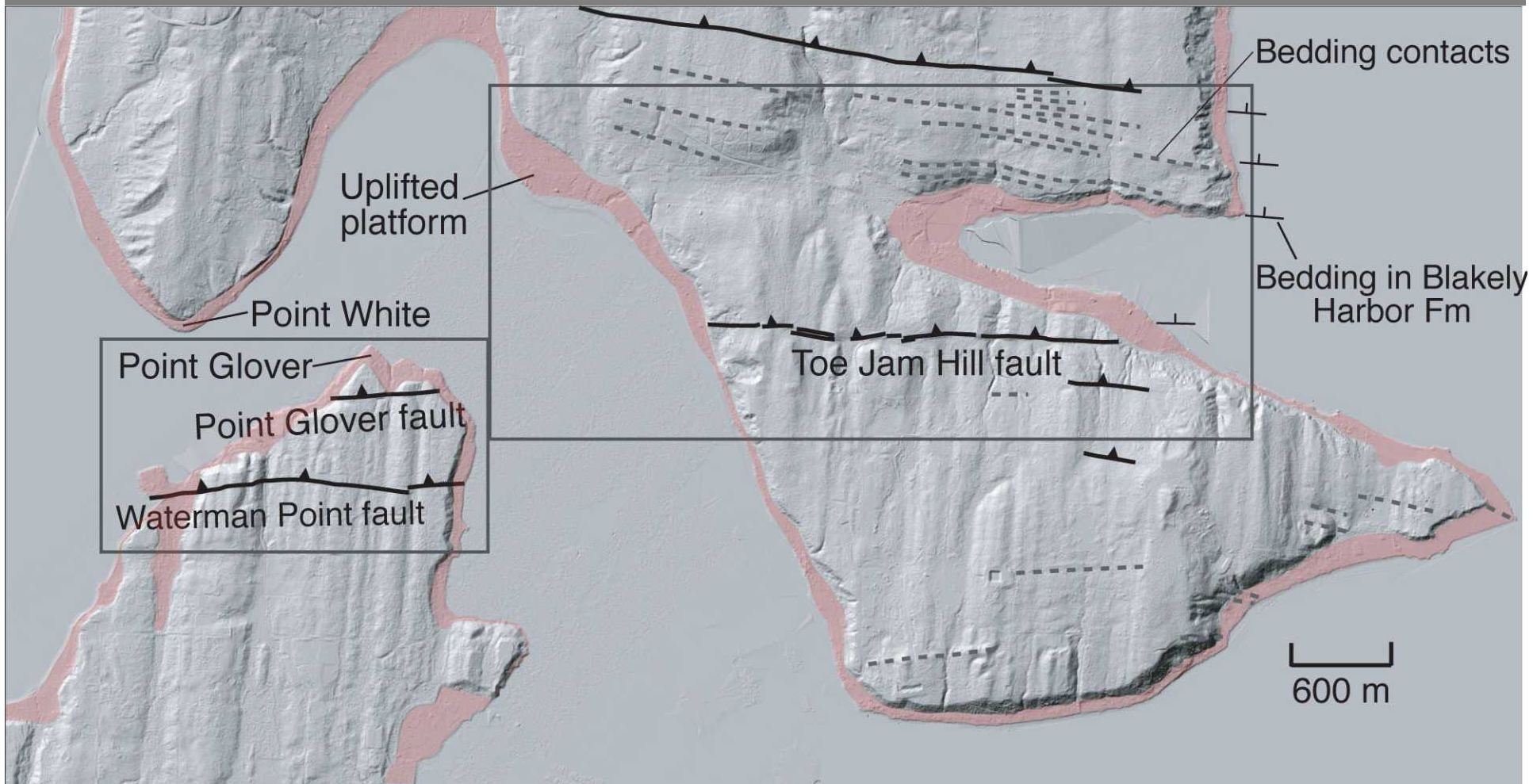
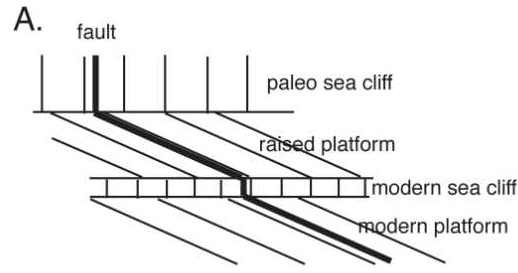


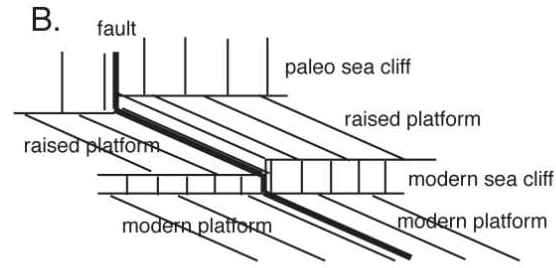
Figure 2



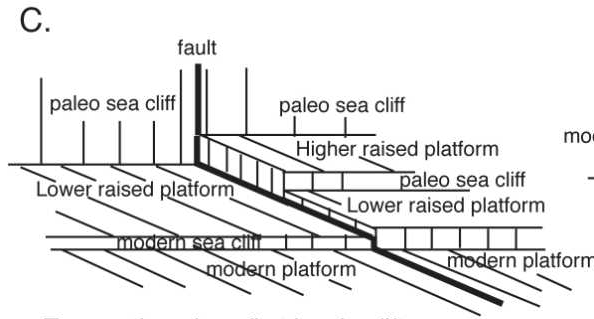




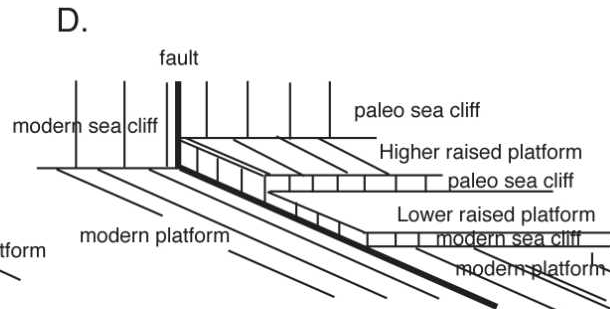
One earthquake: one regional uplift, no local fault offset



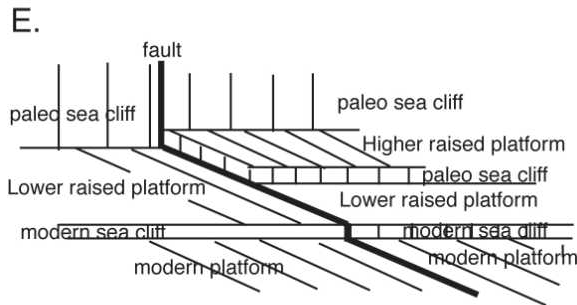
One earthquake: one regional uplift with local fault offset at same time



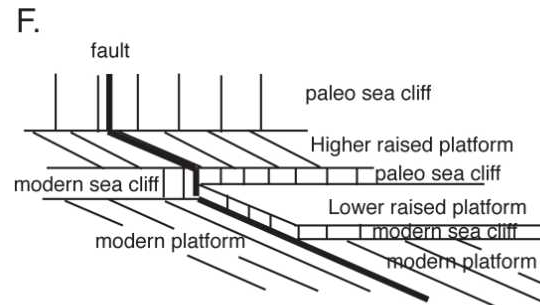
Two earthquakes: first local uplift, second regional uplift and local uplift



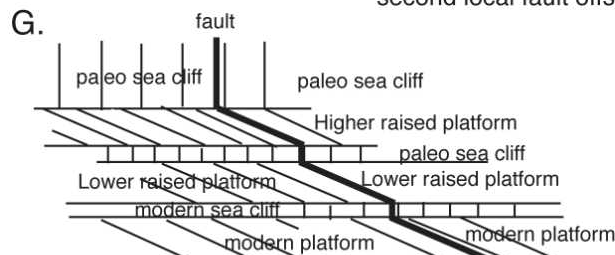
Two earthquakes: first local fault offset, second local uplift



Two earthquakes: first local fault offset, second regional uplift

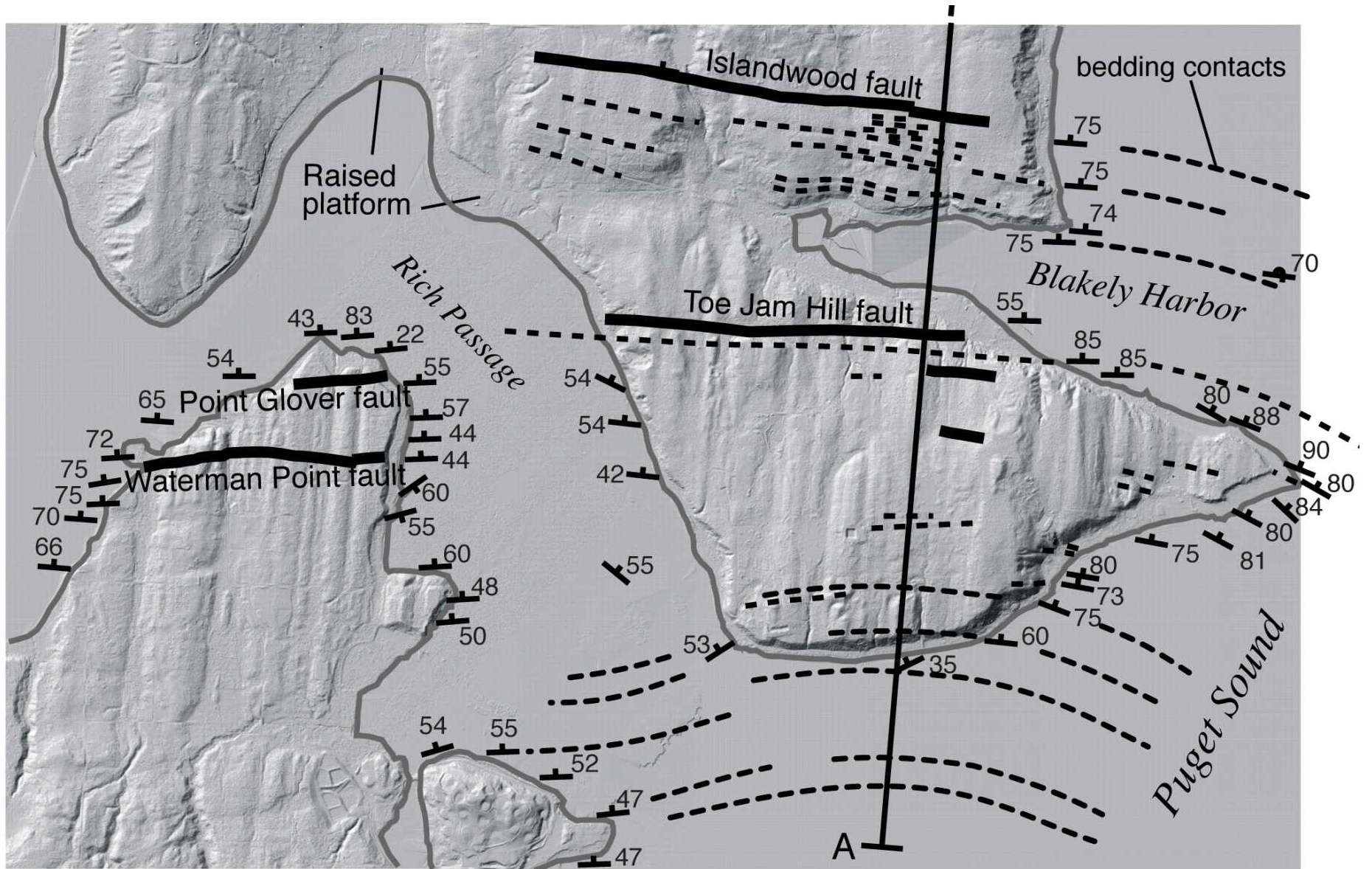


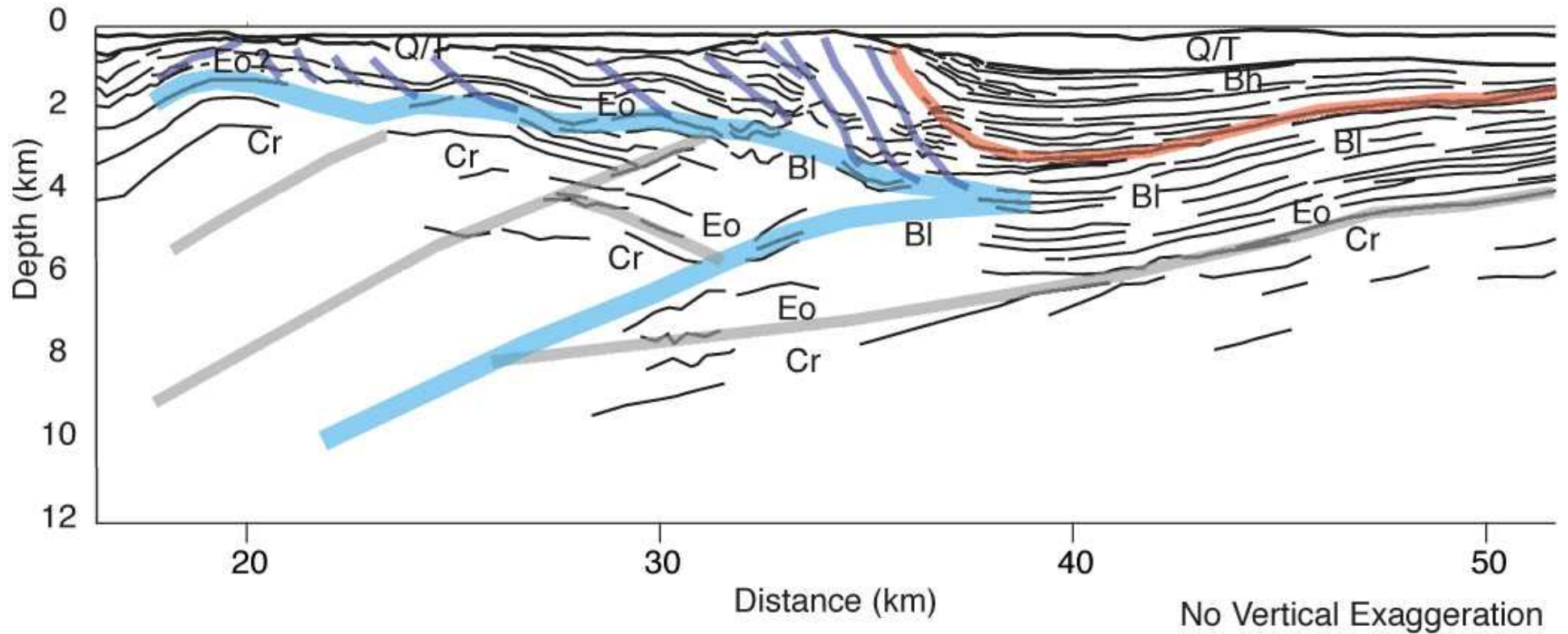
Two earthquakes: first regional uplift, second local fault offset



Two earthquakes: first regional uplift, second regional uplift, no local fault offset

Figure 3





Interpretation from Brocher et al. (2004)