

Marginal Marine and Marine Depositional Systems

Barrier island and back-barrier lagoon, northern Venezuela





Barrier island and back-barrier lagoon

Modern beach with cusped gravel ridges



Well sorted beach gravel



Small wave-dominated delta, Baja California Sur, Mexico



Confined delta, head of reservoir in Washington Cascades



Heading into the marine realm ...



Pliocene fossil pectens (scallops), Baja California Sur, Mexico



Pliocene shallow marine burrows (trace fossils), western Taiwan





Interbedded sandstone and mudstone, Pliocene, eastern Taiwan.

Are they turbidites??

How do we distinguish turbidites from shelf storm deposits??

By close inspection of small scale sedimentary structures!

Classic turbidite sandstone bed:
Sharp base, normal grading, Bouma Divisions B, C, D, E



Symmetrical wave-formed ripple laminations, Eastern Taiwan

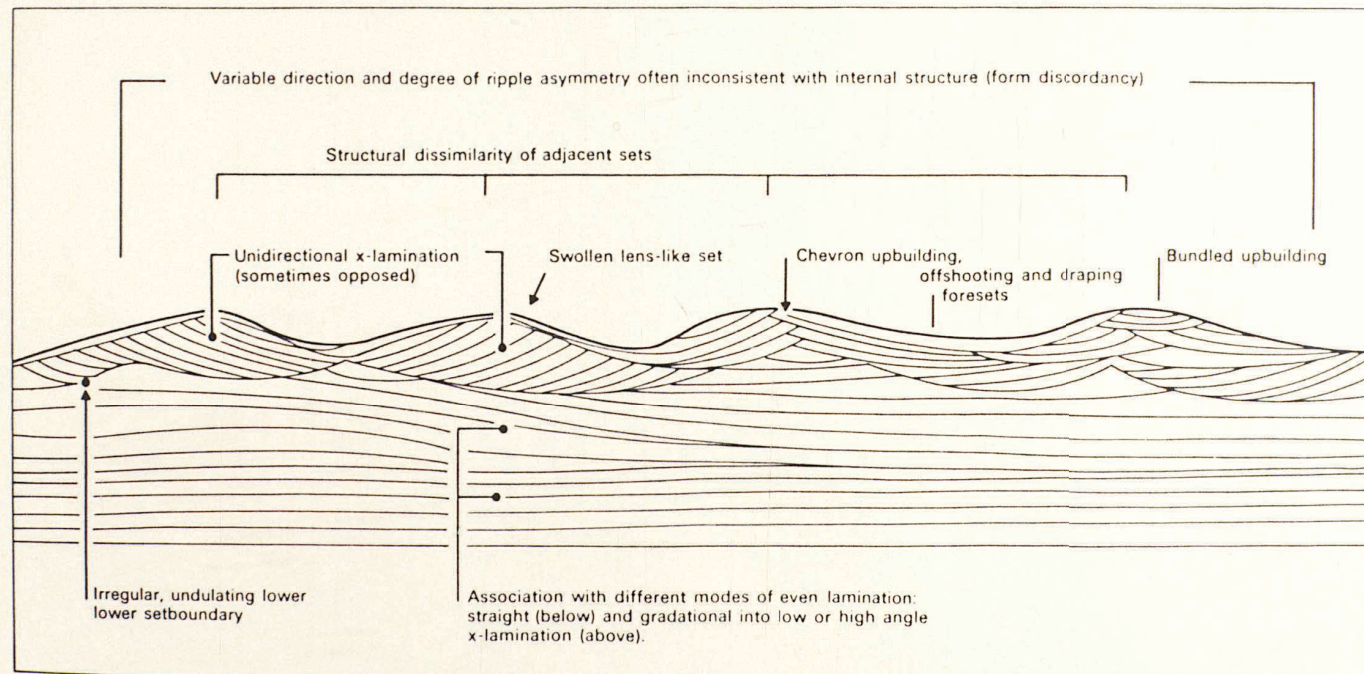


Symmetrical wave-formed ripple laminations, Sunset Bay, OR



Diagnostic features of wave-ripple cross-lamination

Fig. 9.47. General features diagnostic of wave-ripple cross-lamination
(from de Raaf *et al.*, 1977, after Boersma, 1970).



Awesome group on an awesome field trip! Sunset Bay, May 11, 2019

