



FIGURE 7.26. Idealized variation of tidal current velocity, u_{flood} and u_{ebb} , and sediment transport over one wave period for (A) an asymmetrical progressive tidal wave and (B) a symmetrical, standing tidal wave. Thresholds of sediment motion for sand, u_{cs} , and mud, u_{cm} , are indicated, and the light-shaded areas are periods of sand motion. Under the assumption that deposition occurs throughout the tidal cycle, and that peak tidal currents are strong enough to form dunes, the relative thickness, grain size, and internal structure of the deposits in subtidal and intertidal locations are suggested. Dark shading indicates mud, and light shading indicates sand; R indicates ripple migration and associated small-scale cross strata; D indicates dune migration and associated medium-scale cross strata.