**Facies Models for Transgressive Wave Dominated Coasts**

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Transgressive wave-dominated coasts (TWDC) occur on the critical interface between land and sea. Modern global coastlines have most recently experienced an extensive relative sea level (RSL) rise of over 100 m from ca. 18 ka to around 6 ka. As a result, most of the world's coastlines away from major sediment sources retain a transgressive form and much modern research has been focused on these coasts. In contrast, fewer investigations have targeted ancient TWDCs. Transgressive coastlines record a lower rate of sediment input compared to their rate of relative sea level rise. The resulting stratigraphy is composed of more seaward facies overlying more landward facies and details are determined by the presence of incised valleys, the accumulation of estuarine, lagoonal and coastal barrier sediments and the trajectories of the major wave and tidal ravinement surfaces. Styles of modern and ancient TWDC stratigraphy range from low accommodation and low trajectories in which only the lowest incised valley and estuarine deposits are preserved (Morrow Sandstone, NSW and Delaware modern coast examples), to complex transgressions with high accommodation and high trajectories and stacked transgressive/regressive parasequences (Hosta Sandstone, Louisiana modern coast example). Composite stratigraphies evolve at locations of transgressive/regressive reversal. However TWDC processes, geomorphology, facies and stratigraphic surfaces are relatively consistent over the range of sediment flux and RSL change, allowing for a set of consistent facies models to be constructed and used.