

GLOBAL TECTONO-EUSTASY: SOME NEW APPROACHES.

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Sequence Stratigraphy and Plate Tectonics are the actual geological paradigms. The first was postulated by Sloss et al. who assumed the existence of global sedimentation or erosion over the Earth surface. Later, Vail and colleagues published the Sequence Stratigraphic concepts, using the global eustasy, sensu Suess and Fairbridge. They published a global world eustatic chart, where it was assumed that the first and second order eustatic cycles were controlled by global tectonic movements, sensu Carey and Pitman III, and that the higher orders had a climatic control. They postulated that the available space for sedimentary accommodation was controlled by eustasy coupled with subsidence and sedimentary supply. The Plate Tectonic paradigm was proposed by Wegener. Later, Wilson published his ideas about the Supercontinent Cycle caused by birth and death of oceanic lithospheric floor. Morgan, based on the displacement of mass over a spheric surface used the eulerian axial rotation pole concept to explain how the plate motion was possible. Le Pichon, using Morgan's idea, divided the Earth crust in seven main tectonic plates and calculated the position of rotational axis, assuming mass translation along transform faults alignments. According to the paradigms showed above many geologists drew correlations between times of continental collisions, marine regressions, unconformities, uplifts, big valley excavations and times of continental breakups, transgressions, green houses, upwellings, increase of carbonate precipitation, etc. This paper intends to demonstrate that besides the known cycles there are other sedimentary records of global transgressions and regressions and related events. These events are also linked with continental collision and fragmentation cycles. They validate some lost concepts as the Antler Effect and the Mirrow Effect sensu Haug and Johnson, respectively. This paper also tries to show that the geologic events act in concert as can be exemplified by the relationship between rifts, negative and positive sea eustasy and same events on the land with opposite signals.