

## **CONTINENTAL SHELVES IN THE QUATERNARY - IMPLICATIONS FOR SEQUENCE STRATIGRAPHY**

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The Quaternary stratigraphy of continental margins is usually undertaken by means of high-resolution low-penetration seismics that allow a very good depiction of subsurface geometry and acoustic facies of seismic units. Detailed study of cores - where available - support facies interpretation and allows datation of the deposits. Such increasing knowledge of internal architecture and stacking pattern of the recent units making up the continental shelves, and the correlation with global sea-level curve, led to the emergence of data that can have relevant bearing on sequence stratigraphy model and concepts that have scanty dealt with high-frequency sedimentary deposits. First-generation sequence stratigraphic models assume a nearly sinusoidal sea-level curve, a quite constant (or slowly variable) sedimentary supply and progradation occurring essentially during high- and low-stands. On the contrary, due to the profound asymmetry and high-frequency and amplitude of glacioeustatic changes, the development of systems tracts is extremely uneven in time and space. Continental shelf systems respond to changes caused by external factors such as climate, eustasy and tectonics, as well as - at high resolution scale - to internal and/or local factors which may have in certain circumstances a pronounced effect on the stratigraphic record. Stratigraphic expression of the Plio/Quaternary boundary and Middle Pleistocene Revolution (920 kyr) will be discussed. In support, correlation of shelf depositional sequences landwards and basinwards and the high order(s) of depositional sequences, as well as more specific but meaningful features as occurrence gas, valley incision within systems tracts, types of basal unconformities, paleoclimate indicators will be presented.