

“Offshore Transition” is a Bucket Term!

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Summary

Most workers employ the term “offshore transition” to characterize a discrete subenvironment that lies somewhere between the fairweather-influenced lower shoreface and the underlying offshore. This rather loosely employed terminology seeks to characterize a range of bedding types, grain sizes, primary sedimentary structures, lithological variations, ichnological suites and bioturbation intensities. “Offshore transition” deposits, as described in the literature, typically are expressed as: 1) thoroughly bioturbated silty and sandy mudstone to muddy sandstone facies; or 2) weakly to moderately bioturbated, thinly interbedded sandstone, siltstone and mudstone facies with predominantly wave- and/or storm-generated structures. The full continuum of shelf through nondeltaic strandplain shoreface (e.g., lower offshore, upper offshore and distal lower shoreface) settings can be readily discerned through the integration of ichnology and sedimentology at the facies level.

We contend, therefore, that there is no actual depositional subenvironment along the shoreface profile that corresponds to the putative “offshore transition”. We recommend that the term, if used at all, should be reserved for characterizing heterolithic successions of tempestites interstratified with burrowed, mud-prone offshore deposits, where the specific position along the depositional profile is uncertain. We regard the term to reflect a taphonomic expression of storm-affected deposits within the offshore regime that may extend shelfward in strongly storm-dominated settings. The term is inappropriate for storm-influenced prodeltaic or distal delta-front successions, because well-established deltaic terminology for such settings already exists. Similarly, it should not be used to characterize thoroughly bioturbated fairweather deposits, if the ichnological suites can be utilized to accurately delineate the specific subenvironment.