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Holocene integrated stratigraphy of the continental shelf basin off the northern Salerno bay rocky coast, Eastern Tyrrhenian Sea

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The northern continental shelf of the Salerno Bay develops on the southern flank of the Sorrento Peninsula, a major Quaternary structure of the western sector of Southern Apennines. This area corresponds to a narrow structural high that separates two major embayments of the eastern Tyrrhenian margin (the Naples and Salerno Bays) and can be traced as a distinct tectonic element of the coastal half-graben system. The rocky coast of the Northern Salerno Bay coast is represented by a steep carbonate cliff deeply incised by a pattern of bedrock rivers and channels which carries evidence of an impressive tectonic uplift of this sector of the Southern Apennines during the Mid-Late Ouaternary. As a result of the large offset along the major normal fault system that bound the southern edge of Sorrento Peninsula and the remarkable tectonic subsidence active offshore during the latest Quaternary, considerable accommodation space was created on the continental shelf that was filled up by a significant river sediment input. The coupling of large accommodation space and high sediment supply mostly fed by coalescent flood-dominated fan deltas have allowed for the development of an Upper Quaternary expanded succession, represented by an impressive prograding sequence with depocenters of the post-glacial deposits reaching 38 m, and the thickness of the sedimentary succession of the last 2.000 years approaches 16 m.