Aghios Kyprianos Beach, Andros Island, Aegean Sea, Greece.

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Aghios Kyprianos Beach, Andros Island, Aegean Sea, Greece. The coastal shorelines of Andros Island have a dynamic status due to tectonics, torrents, floods, and sea wave actions. The area of the image above belongs to the slate unit with alluvial deposits. It is a complex metamorphic area adjacent to the Aghios Petros unit represented by alternations of quartz-mica schists and micaceous marbles, as well as chlorite-bearing amphibolites with gray-blue marble horizons. Straight ahead in the image is Yaros Island and on the left a set of small islands called the Gavronisia. The island of Andros, one of the Cycladic scattered islands in the Aegean Sea, consists mainly of crystalline rocks, with the exception of compact or loose sedimentary formations of the Quaternary. The crystalline rocks include slates of various varieties, with marbles and some basic eruptive rocks. Some occurrences of acidic rocks are the result of neotectonic processes. It has been recognized as a metamorphic core complex. This system comprises two major geotectonic units: the Makrotantalon nappe, at the northern Andros, which is overlain by the Lower Unit, cropping out in the central and Southern Andros. The Makrotantalon nappe reaches a thickness of 600 m and comprises clastic metasediments and marbles (formed from a Permian protolith) and subordinate metabasic schists, lacking any evidence of the high pressure M1 event which has affected the Cycladic Blueschist Unit in the Aegean. A tectonic contact, which is also locally coupled by the presence of serpentinites, separates the Maktotantalon nappe from the thicker (up to 1200 m) Lower Unit. This constitutes an Upper Triassic to Lower Jurassic volcano-sedimentary sequence involving marbles, calcite schists and clastic metasediments with local intercalations of Fe-Mn metasediments and metabasic rocks that exhibit significant evidence of the high P event. (Photograph taken July 2019 by Ioannis Liritzis, University of the Aegean, Rhodes Island, Greece.)