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Recent coastal evolution of gravel barachoix, Placentia Bay, Newfoundland (Poster)

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Detailed study of gravel barachoix beaches at Ship Cove and Big Barasway, Placentia Bay, has revealed significant differences in morphology, sediment texture, and structures between the beaches, in addition to lateral variability within each of these systems. The individual shoreline assemblages reflect differences in source material volume and characteristics, in the amount and seasonal variability of local sediment supply from fluvial discharge and bluff erosion, and in the hydrodynamic settings of the barachoix. Differences in orientation with respect to the prevailing southwesterly winds, and in the nearshore bathymetry, also contribute to the characters of the shorelines. Anthropogenic modification of the beach systems has been extensive. The Ship Cove system is currently unstable as a result of aggregate removal during highway construction in the early 1960s and a forced northerly relocation of the outlet. At Big Barasway, sediment depletion and limited re-supply has resulted in extensive erosion throughout 1992. The outlet has widened more than 5 m between May and December 1992. Overwashing and icefoot development also act to modify both shorelines to different degrees. Radiocarbon dates and sedimentological data indicate that transgression is currently occurring along the

southeast Placentia Bay shore, and further modification of the coastline is anticipated in the subsequent century.