



## **Comparative Sedimentology of the Bahamas: The Legacy of Robert N. Ginsburg**

Peter Swart, Gregor Eberli, Sam Purkis, Mitch Harris, and Don McNeill  
University of Miami, RSMAS, MGG, Miami, United States (pswart@rsmas.miami.edu)

Numerous workers have studied the surface sediments of the Bahamas over the past 100 years. In chronological order these included, Vaughan, Drew, Black, Field, Illing, Ginsburg, Newell, Purdy, and Enos. These early efforts set the stage for the sediment distribution maps of Ginsburg and Purdy, revealing a carbonate platform dominated by non-skeletal carbonates such as whittings, ooids, and peloids and surrounded by a rim a skeletal producing organisms. Based on the shoulders of these early workers Bob and his students applied the concept of comparative sedimentology to the Bahamas and began investigating the third dimension through a series of cores drilled on Little and Great Bahama Bank. In particular the question addressed was whether the Modern pattern of sediment distribution always been the same? Initially these borings appeared to support the model that the Bahamas had always been a shallow water platform, surrounded by reefs, the so-called layer cake stratigraphy model. It was not until Bob was gifted the tops of some seismic lines from the Bahamas that the true picture of the Bahamas was revealed. The Bahamas was not composed of horizontally inclined sediments, but rather a series of smaller platforms that had coalesced together by progradation with the sediments (Undaforms and Clinoforms) being derived from the platform tops during periods of high sea level. These ideas resulted in the drilling of two deep holes, Clino and Unda, on the western margin of Great Bahama Bank, and the drilling of a transect by the Ocean Drilling Program into the Straits of Florida (Leg 166). These borings not only confirmed this new view of the Bahamas, but also led to a series of groundbreaking revelations about sequence and chemostratigraphy which had far ranging implications in the field of sedimentary carbonate geology.