CHAPTER 7

THE BAHAMA BANKS—LIMESTONE IN THE MAKING

In this age of rapid air transportation many people have become familiar with "The Bahamas" as a great recreation and vacation area. There are scores of beautiful islands, surrounded by warm, clear waters which attract people from all over the United States, Canada, and Europe. But a look at the map (Figure 20) will show that there is more than just a group of islands here. Note from the several small numbers indicating water depth (in feet) that there are great shallow-water areas stretching out for many miles from the islands. These are the upper surfaces of the Bahama Banks, which stand high above the ocean floor. The Great Bahama Bank is approximately 80 miles wide and over 300 miles long, and the Little Bahama Bank is 50 by 150 miles.

Perhaps the most remarkable feature of these banks is their flat-topped nature, and their very steep sides, which plunge rapidly to great depths. All across the platforms (tops) of the bank the water is only from 3 to 20 feet deep, but the sides then suddenly drop off, allowing the water to become over one-half mile deep on the west side of the Great Bahama Bank and approximately one mile in depth on the east. In fact, one needs to go only 10 miles east of the edge of the platform, in the region of Cat Island, to be in water which is nearly 3 miles deep.

The Banks as Geologic Structures

What then is the significance of these great, flat-topped, slightly submerged plateaus which tower above the ocean floor? The key to their significance lies in the types of carbonate sediments of which they are composed. So we will have to consider those types to get a full picture of these banks in relation to time. However, as a preliminary statement we can point out that the sediments, as well as the geometric form, of the Banks show that these great structures have not been hastily or haphazardly formed. They were built up from the bottom by the gradual accumulation of carbonate sediments such as those which are still being produced daily all across their upper surface. In fact, the Bahama Banks are composed almost entirely of pure carbonate sediments--some sand-sized, some smaller, and some larger. Most of these, except in the upper surface of the banks, are now lithified, and are thus limestone and dolostone. "Who" then are the builders? All the host of lime-secreting organisms, both animal and plant, which live there in the warm tropical waters.[1]

Types of Sediments Which Form the Banks

There are coral reefs on several parts of the Bahama Banks, and the corals and other organisms which grow with them have contributed a great deal of sediment ("skeletal sand"). However, the