

miles above. It is reduced to fifteen miles in width only, near the mouth of the Saguenay, which is 325 miles above Anticosti.

Upon the edge of the continental plateau, the Bahaman Channel (extending from the Straits of Florida, along the northern side of the Bahama Islands*) or drowned valley, has a breadth of seventeen miles, (although its depth is 11,898 feet) where the adjacent shelf is submerged 5,650 feet. The deeper part of the drowned valley of the Mississippi has a breadth of twenty. The broader plain-like floors of the Floridian Channel (the drowned valley extending from the shallowest part of the Straits of Florida to the floor of the Gulf of Mexico. See Map), are rarely forty miles wide, and the deeper ones may be reduced to ten miles. Among the Bahama banks, the deep valleys have a breadth of ten or fifteen miles, while the broader and shallower portions near the surface of the sea may reach from forty to sixty miles in breadth. There are numerous short amphitheatres, indenting the margins of the submarine plateaus, which relatively have no greater magnitudes and declivities than their counterparts which are tributary to the Colorado, or others indenting the margins of the Mexican table-lands.

From a vast number of examples studied, of which these given are only types, the conclusion is that the magnitude of the submerged valleys under the varying conditions is no greater than that of the valleys upon the surface of the continent.

The gradients of the submarine valleys, if considered without their analysis, would be wholly misleading, just as it would be to suppose a uniform descent for the valleys dissecting the border of the Mexican table-lands. Of the various submerged valleys, the Floridian channel offers one of the most complete subjects for study, and its slopes are illustrated in figure 2. For purposes of comparison, the declivities of the Floridan valley, and those of two other valleys (figures 5 and 6), descending from the table-lands of Mexico, are drawn to the same scale as shown on a following page, but the scale of the land valleys is too small to illustrate the numerous terrace steps. Other examples of the submarine gradients are shown in the sections of the Bahaman and Abacan (figure 3), and Cazonan (figure 4), channels, the last of which in magnitude closely resembles the Atoyac valley. If the declivities of the valleys, descending from the Mexican plateau be taken as a whole, the slopes will be observed to be more precipitous than the greater steps now known in the descent of the Floridian channel, or of the channels amongst the Bahamas.

*See Map reproduced from the "Reconstruction of the Antillean Continent," opposite page 357.