

ating over the National Highway between the port and Bogotá. This is a graveled, one way road, with traffic going to Bogotá three times weekly and to Puerto Berrio three times, there being no traffic on Sundays except by special permit. At present a new highway, between Medellín and Cartagena is planned. If this is constructed Puerto Berrio may decline into just another river village.

Until some new crop, suited to the climate of the region, is introduced, the Magdalena Valley, agriculturally, will remain a jungle, inhabited only by mestizos. However, practically the entire valley is at present under concessions to the major oil companies of the world. This presents a bright future, but the fields are as yet undeveloped. Valuable deposits of building stones also await capital for exploitation.

NOTE ON THE ORIGIN OF TIFFIN HOLE, IOWA

John D. Boon and Claude C. Albritton, Jr.

In describing the crater-like depression a quarter of a mile south of Tiffin, Iowa, Professor C. C. Wylie emphasized the need for criteria to distinguish depressions caused by meteoritic explosions from those formed by other agencies.¹ He was able to show that this elliptical depression 100 ft. long, 75 ft. across, and about eight feet deep, is not a sink hole, buffalo wallow, artificial pond, or initial depression in glacial drift. Although the Tiffin "Crater" is situated on the flood plain of Clear Creek, 150 ft. distant, it was the opinion of hydraulic engineers that the hole could not have been formed by ordinary processes of stream flow and erosion. Professor Wylie considered the possibility of a meteoritic origin, but was unable to discover convincing field evidence to support this hypothesis.

The writers suggest that Tiffin Hole is a swirl pit formed during a past flood of Clear Creek. Particularly illuminating in this connection is R. F. Collins and Marshall Schalk's

¹Wylie, C. C., "A Peculiar Hole Near Tiffin, Iowa", *Popular Astronomy*, Vol. XLV (1937), pp. 445-449.

account of the Connecticut River flood of March, 1936.² For some 72 hours, overflow water covered the flood plain of the Connecticut River near Hatfield, Massachusetts. In the course of this short time, strong vortical currents beneath the surface of the flood water excavated a remarkable series of coalescing and isolated swirl pits in soft, unconsolidated bottom materials. The excellent contour map and photographs accompanying Collins and Schalk's account shows that the isolated swirl pits are strikingly similar to the Tiffin Hole in (a) location with respect to stream, (b) elliptical shape, and (c) depth. The following table compares the dimensions of three of the larger isolated swirl pits with those of Tiffin Hole. As in the case of the Tiffin depression, the Con-

Swirl Pits in Connecticut Valley			
	Length (ft.)	Maximum Width (ft.)	Depth (ft.)
1.	125	80	11
2.	100	60	10
3.	100	70	10
	Tiffin Hole, Iowa		
	100	75	8

necticut Valley pits are floored to a depth of several feet with silt, which settled out of water remaining in the holes after the flood.

Wylie has noted that Tiffin Hole is subject to occasional flooding. It seems likely, therefore, that this depression is not a meteorite crater, but rather a swirl pit formed during a past, powerful flood of Clear Creek.

²Collins, R. F. and Schalk, Marshal, "Torrential Flood Erosion in the Connecticut Valley, March, 1936", *American Jour. Science* (5), Vol. XXXIV (1937), pp. 293-307, 1 map, 9 figs.