

one for running a vessel aground. To exaggerate rather than underrate, the quantity of sediment newly deposited by the river, is the bias of each witness, although their statements may in the main be correct; for in the contest annually carried on between the river and the sea, there is unquestionably a vast amount of destruction and renovation of mud-banks and sand bars. In these changes the action of the tide, and the power of the breakers during storms, and a strong marine current, all play their part. There seem to be well-authenticated accounts of anchors cast up from a depth of several fathoms near the mouths of the river, and heavy stones sunk sixteen feet deep, and found afterward high and dry on shoals. The ballast also of several wrecked vessels, the submergence of which, in two or three fathoms water, had been ascertained, have in like manner been thrown up, above high water mark, on newly formed islands.

All the pilots agree, that when the Mississippi is at its height, it pours several streams of fresh water, tinged with yellow sediment, twelve or more miles into the gulf, beyond its mouths. These streams floating over the heavier salt water, spread out into broad superficial sheets or layers, which the keels of vessels plough through, turning up a furrow of clear blue water, forming a dark streak in the middle of the ship's wake. I infer, therefore, that both in the summer, when the swollen river is turbid and depositing mud, and in the winter, when the sea is making reprisals on the delta, there is a large amount of fine sediment dispersed far and wide, and carried by currents to the deeper and more distant parts of the Gulf. To this dispersing power I shall recall the reader's attention in a future chapter, when discussing the probable antiquity of the delta.

*March 2.*—We returned to New Orleans in the same steamer. It is remarkable that for more than 150 miles above the Balize, there is only one of those great bends in the course of the Mississippi, which are so general a character of its channel north of New Orleans. The exception is the great sweep called the English Turn. Mr. Forshey imputes this difference in the shape of the bed of the river to the distinct circumstances under which a stream is placed when it shapes out its course through a deposit