Volume of the Ancient Wabash River.

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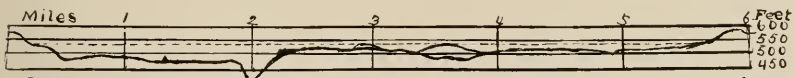
The Wabash valley at Terre Haute has a width of five to six miles. One-third this width has a depth of approximately one hundred feet, embracing a flood plain tract through which the river meanders in a channel averaging one thousand feet wide and twenty feet deep. The remaining half is a terrace about half the depth of the deeper part. The whole valley bottom shows the effects of stream deposition, the pre-glacial trench of two hundred to two hundred and fifty feet in depth being half-full of sand and gravel. A point



Generalized profile across Wabash Valley at Terre Haute.

of interest in connection with the stream and valley is the question of volume of water by which various phases of the work was done. The size and weight of pebbles in the gravel indicate a volume and velocity much greater than that of the present stream either in average volume or flood. Some suggestion as to the width and depth of the stream at its stage of greatest flow is furnished by features of the terrace surface consisting of sandbars and delta deposits. This terrace surface is marked with numerous shallow current lines or channels. The bars form ridges of greater length than width, often many times longer. They trend northeast, southwest, the direction of the valley and have the characteristic stratified structure of such features, the layers of finer or coarser sand dipping steeply down stream. Extensive areas of the terrace surface lie at an elevation of four hundred and ninety feet a.t.l. Some places are five feet lower while some of the ridge tops rise to the five hundred and thirty foot level. Low water in the present stream is four hundred and forty-five feet. Points in sections 3, 23 and 24 and a bluff side delta of a brook crossed by Fruitridge avenue at the south edge of Section 24, Town 12 N. Range 9 W., rise to nearly the five hundred thirty foot level. Sandbars and deltas are built under water and the surface of the stream in which these deposits were made must have been a few inches and possibly several feet above the ridge and delta tops when they were

completed. The range of elevation four hundred ninety to five hundred thirty equals forty feet over large areas with places of forty-five feet or more. A cross profile from bluff to bluff shows these ridge tops to be the highest points between bluffs. Water covering these ridges must have covered the valley from side to side making a stream of from five to six miles wide and forty to fifty feet deep. Just how much of the year or for how long periods the water maintained such a volume it would seem impossible to say, but probably the maximum volume was reached in summer and maintained through the summer months, declining as winter came on. The assumption is that the largest volume of water was produced by the summer melting of the Great Ice Sheet that formerly overspread the Northern United States and much of Canada. Whether the west deeper side of the valley was then lower than the terrace portion cannot be stated certainly, deeper water probably covered the part of the valley that now shows the greatest depth. A depth of twenty feet of water is shown for the highest parts of the site of Terre Haute.