in any mass of broken up rock, such as affords the foundation of the soil, more than half is of substances such as quartz that save in small quantity, are useless to plants. Thus if the rock be granite, the feldspar and mica and the small amount of lime phosphate are serviceable; while the quartz, which is apt to be in larger quantity, serves, as does the nitrogen of the air, as a mere vehicle for the really useful materials, the soda, lime, potash, etc. So it comes about that where the fields are so flat that the movement of the soil to the sea is too slow, the plant-feeding minerals may all be brought into solution and leached away to the streams, leaving the soil encumbered by the little-soluble, unprofitable, siliceous waste. The true aim, therefore, of a conservative agriculture, such as is to maintain the soil in shape to be useful to man for an indefinitely long future, is to bring about and keep the balance between the processes of rock decay and erosion in fitting adjustment."

--- Nathaniel Southgate Shaler

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THE RED RIVER RAFT

One of the interesting features of Bossier Parish, Louisiana (see Soil Survey Series 1959, No. 13, 1962 by Bruce F. Chaffin, John L. Millet, J. R. Scale, James A. Dement, B. J. Griffin, R. H. Jordan, S. A. Lytle, 3. F. Grafton, and E. F. Young, Jr.) is the alterations of soil profiles of Alluvial soils as a consequence of the "Red River Raft."

"A strong influence on the pattern of drainage and deposition was exerted by the Red River raft, a great logjam that for about 175 years choked the channel of the Red River. The cause of the logjam and the date of its origin are obscure. Early accounts and descriptions of the rate of increase at the head and of decay or natural destruction at the foot have led most observers to believe it began to form at the end of the 17th century or early in the 18th century. Systematic work to break it up began in