

Interactive comment on “Efficient retention of mud drives land building on the Mississippi Delta plain” by Christopher R. Esposito et al.

Anonymous Referee #2

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The authors present an important counterpart to the present literature on delta restoration (primarily the Mississippi) that focuses on sands rather than on the dominant mud fraction.

The demonstration is well done using one example of crevasse splay that the authors generalize to the scale of the whole Mississippi delta, which is dominantly composed of crevasse deposits. One could ask if the crevasse they chose to study is representative and the authors should strengthen their case for this specific point.

Restoration literature uses Wax Lake delta (open coast delta) as a model for crevasse splays, which is of course wrong both in terms of morphodynamics but also in practical terms of retention rates. Contrary to the idea that erosion at the coast is the main mode of land loss in the Mississippi delta, most land is lost on the delta plain and

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reconstruction via crevassing would be most effective if appropriate models are used. This study puts things straight, providing such a model and should inspire future efforts of restoration. The authors should underline these better in their conclusions.

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