Special Guest Lectures

Why Deltas Don't Necessarily Drown When Sea Level Rises

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Howe-Russell Geoscience Complex E-130
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Abstract:
Because most natural deltas are low-lying with respect to sea level, it is natural to think that relative rise in sea level (i.e. subsidence + global sea level rise) will result in rapid drowning of the delta surface. We will review evidence from experiments and the stratigraphic record that shows that this is not the case. Deltaic surfaces are indeed low-lying, but they are highly dynamic and capable of maintaining themselves against high rates of relative sea level rise, given sufficient sediment and the chance to develop natural distributary networks. This basic idea provides the foundation for numerical models for restoration of the Mississippi Delta. Prediction of the details of delta growth requires a new synthesis of ecological, geochemical, and physical processes.

This lecture has a reception.

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