

## **SLOPE SEDIMENTATION IN THE LOWER-MID PLEISTOCENE, OFFSHORE LOUISIANA, NORTH-EAST GULF OF MEXICO**

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### **ABSTRACT**

Seismic stratigraphic analysis of lower-mid Pleistocene stratigraphy (approximately P. Lac2 to P. Lac3) over a 4000 square mile area of the modern Louisiana slope has identified and mapped a major canyon and related slope sequence. A depositional history is proposed that identifies an early phase of sediment supply to the slope that is widespread and lacks seismic-scale channels, followed by more focused sediment supply, canyon formation, canyon filling, and finally slope abandonment.

Integrated seismic and well log stratigraphy identifies several condensed intervals that define and punctuate the slope sequence. Reconstruction of the local and regional paleogeographies further illustrate some of the principal controls on slope deposition in the study area. Contrary to many current models of slope deposition, the canyon fill is at least 50% sand. In addition, the application of current sequence stratigraphic models to the data set is also problematic and illustrates that clear genetic links with local and regional processes are required before slope deposition in the Gulf of Mexico can be fully understood.

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