Supplementary Material

Channel confinement drives unidirectional migration: coupling of flow structure and sedimentary evolution in combined turbidity – bottom current flows

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Model Validation

To validate whether the numerical model used in this study can accurately represent the flow characteristics under turbidity-bottom current interaction, model validation was conducted based on the flume experiments of turbidity-bottom current interaction performed by Miramontes et al. (2020) in the Eurotank flume laboratory at Utrecht University, the Netherlands (Figure S1).

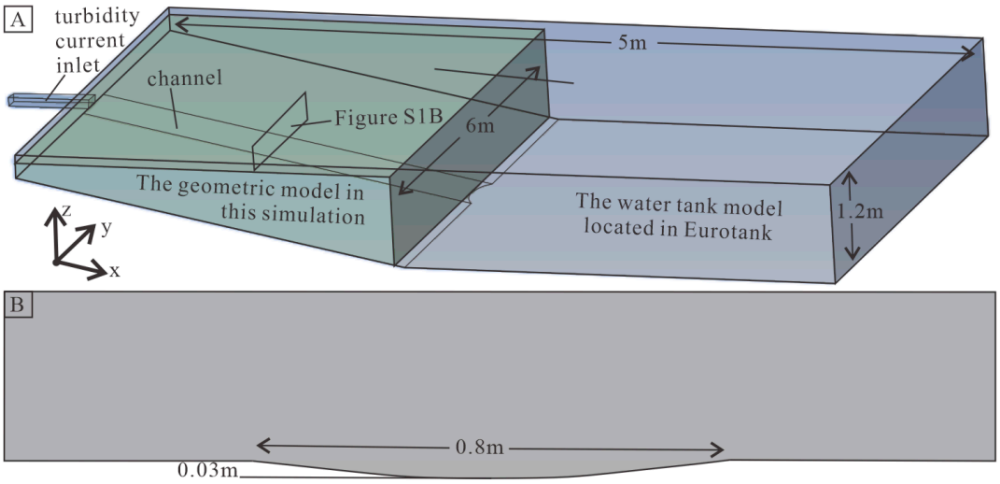


Figure S1. (A) Flume model. The blue section represents the Eurotank flume model used for model validation, while the green section indicates the model used in the simulations. (B) Channel model used for model validation. The location of the cross-section is shown in Figure. S1A.

References

Miramontes, E., Eggenhuisen, J.T., Jacinto, R.S., Poneti, G., Pohl, F., Normandeau, A., Campbell, D.C., Hernández-Molina, F.J., 2020. Channel-levee evolution in combined contour current–turbidity current flows from flume-tank experiments. Geology 48, 353–357. https://doi.org/10.1130/G47111.1