The preservation of sediment supply in deltas

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1. Filling a basin
2. Sediment partitioning in delta deposits
3. Preserving heterogeneity
1. Filling a basin
Morphology – coarse sand delta

1800 m$^3$/s

80%
40%
0%

v. coarse sand
coarse sand
medium sand
fine sand
very fine sand
coarse silt
Med. silt
fine silt
Very fine silt
Morphology – very fine sand delta

0% 40% 80%

v. coarse sand coarse sand medium sand fine sand very fine sand coarse silt medium silt fine silt very fine silt

1100 m³/s
2. Sediment partitioning in delta deposits
(a) Coarse sand

(b) Medium sand

(c) Fine sand

(d) Very fine sand

Grain size classes amplified in mouth bar deposits
3. Preserving heterogeneity
(a) Constant discharge

(b) Increasing discharge

(c) Decreasing discharge

(d) Wet-dry season discharge

TuDelft
Filling a basin

Sediment partitioning and depositional heterogeneity