

## Digital Appendix supplementary material for Long article

Table S1. Macroform-scale architectural elements

Figure S1. Keweenawan (~ 1.1 Ga) channel-fill boulder and cobble conglomerate, Mamainse Point, Ontario. Solid red lines (3) indicate third-order (or higher) surfaces defining individual channel complexes; Bold green dashed lines (2) indicates LA surfaces; and yellow thin dashed lines (1) indicate set boundaries.

Figure S2. Architectural details of deep gravel-bed river deposits in the Uairén Formation. Dark unit is upper member; light unit is lower member. Gm, Gt, Gp = massive, trough, and planar cross-stratified conglomerate; SG = sandy conglomerate; GS = gravelly sandstone; St = trough cross-stratified sandstone.

Figure S3. Architecture of simple downstream (DA) and downstream lateral-accretion (DLA) deposits in a shallow sandy braided river deposit in the Paleoproterozoic Mississagi Formation, based on Long and Donaldson (2005). Arrows indicate paleo-flow from zeroth-order surfaces (foresets), pins indicate slope of set and coset boundaries. Roses on right show how slopes of cross-stratification (black) relate to set (dark gray) and coset (light gray) slopes.

Figure S4. Architecture of deep sand-bed braided river deposits in the Bird Member of the Manitou Falls Formation, based on Long (2006). Top section shows outcrop, surfaces and element orientations, and grouped slope data. Bottom shows individual channel-fill sequences with relative ordering of structures.