

General Theme 5

5.1

Many developments in sedimentological and stratigraphic methods are converging to provide powerful new ways to interpret the geological record with ever greater fidelity. Stratigraphic architectures are being documented in great detail by reflection seismic data; chronostratigraphic methods are providing ever more refined details on the ages of stratigraphic units; detrital zircon studies are yielding unexpected insights into sedimentary provenance; and evolving understanding of sediment transport and preservation processes are yielding advanced insights into the links between sediment sources and their history of tectonic uplift, transport processes, and the accumulation of stratigraphic units in sedimentary basins. Mass-balance source-to-sink relationships can be constrained by a deeper understanding of sediment dispersal processes and the time framework over which basinal accumulation takes place.

Much of the early work that has brought these developments together has been in the realm of nonmarine and shallow-marine clastic sedimentation. We suggest that these studies should be expanded into other clastic realms, and that a similar approach be attempted for studies of carbonate and other chemical sedimentary environments. This session invites submission of papers focussed on S2S studies that quantify sediment fluxes and link them to mapped sink volumes, with a focus on high-resolution stratigraphy, with excellent temporal controls. We would like to see examples from both modern and ancient sedimentary systems.