



Tectonic versus Salt origin for the concealed tectonic structures of the Neoproterozoic and Phanerozoic in the “Cuvette Centrale” basin, Democratic Republic of Congo

E. Kadima (1), S. Sebagenzi (1), **D. Delvaux** (2), M. Kabeya (3)

(1) Service de Géophysique Appliquée, University of Lubumbashi, DR Congo, (2) 2Royal Museum of Central Africa, Tervuren, Belgium, (3) CNE, Kinshasa, DR Congo
(email: Damien.delvaux@africamuseum.be / phone: +32 2 7695426)

A multidisciplinary study involving gravity and magnetic data along with seismic profiles is a powerful tool to investigate sedimentary basins where seismic data alone may be difficult to interpret. Neoproterozoic and Phanerozoic deformations in the “Cuvette Centrale” (Congo Basin) area have been attributed to crustal contraction and uplift of the basement. Two-dimensional gravity and magnetic models run along several seismic lines show alternatively that these features may be rather related to gravity-driven deformation due to salt movement (to vertical salt movement) and connected to early and late Palaeozoic compressive tectonic phases which have affected the African Plate. This interpretation is constrained by the evaporite-carbonate sequence observed at the base of the sedimentary column in the Mbandaka and the Gilson wells.