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**Style and Timing of Salt Tectonics in the Dniepr-Donets Basin (Ukraine): Implications for Triggering and Driving Mechanisms of Salt Movement in Sedimentary Basins**

The Ukrainian Dniepr-Donets Basin (DDB) is a Late Palaeozoic intracratonic rift basin, with sedimentary thicknesses up to 19 km, displaying the effects of salt tectonics during its entire history of formation. Salt movements in the DDB began during the Devonian syn-rift phase of basin development and, although these exerted controls on the later distribution of salt structures, the geometry of basement faults is not in itself responsible for the regular spacing of salt structures. Post-rift salt movements in the DDB occurred episodically. Episodes of salt movement were triggered by tectonic events. Extensional events that induced salt movement were "thick-skinned" rather than "thin-skinned". Most overburden deformation related to salt movements was ductile regardless of the bulk lithology and degree of diagenesis of overlying sediments, whereas the deformation of sedimentary cover in areas where salt is absent was mainly brittle. Buoyancy, erosion, and differential loading all played a role in driving halokinesis once tectonic forces had pushed the salt-overburden system into disequilibrium; among these factors, erosion of overburden above growing salt structures acted as a key self-renewing force for development of salt diapirs. Very high sedimentation rates (related to high post-rift tectonic subsidence rates), particularly during the Carboniferous, were able to bury pierced diapirs and to load salt bodies such that buoyancy, erosion, and differential loading forces eventually became insufficient to continue driving diapirism - until the system was perturbed by an ensuing tectonic event. In contrast, some salt anticlines and diapirs developed continuously during the entire Mesozoic because of much-reduced tectonic subsidence rates during this time.