(basement). The MDT, on surface, demarcates Delhi rocks and Marwar rocks.

MT and DSS data including surface observation taken together indicate that GBT is main thrust and that JT and CT were evolved with similar nature and geometry to accommodate the upward movement of crustal blocks during the Delhi orogeny (ca. 1.4 Ga). During inversion of the Aravalli and Delhi basins, JT took up maximum strain and the stress component decreased gradually eastward (as evidenced by eastward decreasing intensity of rock deformation) (Verma, 1999b). It is likely that the Chambal thrust evolved at the time of opening of the Vindhyan basin vis-a-vis inversion of the Proterozoic rift basins of the Aravalli mountain range. The sediment thickness distribution across CT indicates that it was an active fault during the Vindhyan sedimentation. The observation, that the deformed Vindhyan rocks in Rajasthan are sandwiched between GBT and CT, indicates a relation between deformation of the Vindhyan rocks and reactivation of these faults. The plume activity, magmatic underplating, rejuvenation of topography in the AMR and deformation of the Vindhyan rocks are related to Mesozoic/Cenozoic thermal event. The rejuvenation of topography and reactivation of faults in the AMR (including deformation of the Vindhyan rocks) may be correlated to Maastrichtian (Cretaceous) thermal activity leading to Deccan volcanic province (65–68 Ma). Further, tectonically controlled present course of the Chambal river with wide spread distribution of dynamic ravine lands in the valley suggests neotectonic activity along CT, which may be reflection of the ongoing Himalayan activity. Presence of several circular anomalies and highly mineralised zones in the region bear a testimony to present interpretation.

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Neoproterozoic Taimyr and Yenisey Ridge Fold Belts (Siberia): Tectonic Evolution

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The Proterozoic fold-nappe belts outcrop along almost all stretch of the western boundary of the Siberian craton. The Central Taimyr accretionary and Yenisey Ridge belts are the typical representatives. The first frames the Siberian craton on the northwest, and the second on the southwest. Although the two belts are separated by a distance of about 1500 km, however, same Neoproterozoic collision-accretionary events are exposed in both belts allowing an evaluation of the tectonic evolution of the overall western margin of the Siberian craton in Neoproterozoic.

In the near Grenville and post Grenville times, accretionary-collision events are considered to have led to the formation of granite-metamorphic belts with 940–850 Ma granite (Vernikovsky et al., 1998; Nozhkin et al., 1999; Pease et al., 2001, in press). The negative ε_{Nd} (-8.0 -0) values for these rocks suggest the key role of crustal component with model source ages of TNd (DM) = 2150–1560 Ma (Vernikovsky et al., 1999). Granite-metamorphic terranes are situated in the structures of Taimyr and Yenisey Ridge between ophiolite and island-arc belts of 1000–700 Ma (Vernikovsky et al., 1999). The younger ophiolites (700 Ma) which occupy the external zones of the structures were formed almost contemporaneously close to Taimyr and Yenisey Ridge. Also, they were obducted onto the passive continental margin of the Siberian platform at the same time (~600 Ma) (Vernikovsky, 1996; Khain et al., 1997).

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