Palaeomagnetic constraints on the position of the Kalahari craton in Rodinia

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Abstract

A comparison of late Mesoproterozoic **palaeomagnetic** poles from the **Kalahari** craton and its correlative Grunehogna craton in East Antarctica shows that the **Kalahari**–Grunehogna craton straddled the palaeo-Equator and underwent no azimuthal rotation between ca. 1130 and 1105 Ma. Comparison of the **Kalahari** palaeopoles with the Laurentia APWP between 1130 and 1000 Ma shows that there was a latitudinal separation of 30±14° between **Kalahari** and the Llano–West Texas margin of Laurentia at ca. 1105 Ma. The **Kalahari** craton could have converged with southwestern Laurentia between 1060 and 1030 Ma to become part of Rodinia by 1000 Ma. In Rodinia, the **Kalahari** craton lay near East Antarctica with the Namaqua–Natal orogenic belt facing outboard and away from the Laurentian craton.

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