historical occurrence of continental glaciation in present tropical regions such as Brazil and India, and in other continental areas outside the present polar regions, such as in Canada. It also explains evidence of subtropical conditions in Greenland and the northern Arctic Islands of Canada and could be the explanation of the apparent worldwide extinction of species, both on land and in the sea. It is well known that sudden temperature changes are an important contributing factor in mass mortality. Shifts of the crust would explain world-wide changes in sea level because the crust only would shift but not the equatorial bulge of the oceans. This would result in world-wide transgressions and emergences, and give rise to world-wide unconformities and hiatuses—to world-wide sequences of sedimentary rocks.

It is suggested that, whereas isostatic equilibrium is maintained by slow vertical adjustments, metastatic equilibrium is maintained by sudden horizontal adjustments. From this it follows that mountain-building deformation was sudden and is tied in to times of metastatic adjustment or horizontal shift of the crust and to world-wide unconformities. Metastasy and the relative displacement of the continents seems now more plausible than ever before (Blackett, et al., 1960; Du Bois, 1958b). Irving and Green (1957) have presented a most convincing picture for the grouping of the continents of the Southern Hemisphere in pre-Oligocene time. It is necessary to take a new look at world-wide correlations, with more emphasis on world-wide unconformities, sequences, hiatuses, et cetera. Biological evidence should be examined anew with this picture in mind. See Wulff (1943), Bain (1953), Dorf (1959). Paleomagnetism appears to be a powerful new tool and will eventually help to date accurately times of metastasy and orogeny, and times of erosion and sedimentation. It is also a new, promising method of reliably dating rocks, time of metamorphism and granitization, and for working out the geologic history of the earth’s crust—its climate, predicting the position of equatorial reef belts in the geologic past, or of properly orienting drill cores.

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