



PALINSPASTIC MAP OF THE SOUTHERN CANADIAN ROCKY MOUNTAINS
by J.D.Aitken

The palinspastic restoration is based on two published, restored cross-sections. The southern cross-section, A - B, is by Price and Farmor (1982); the northern, C - D, is by Campbell, Mountjoy and Struick (1982). The southwestward restorations are of the same order as those of Norris (1971, Fig. 1).

The strips showing topography (drainage) represent the present surface. The intervening blank strips represent rock that is presently concealed beneath overriding thrust sheets, plus the restoration of rock that is presently shortened by folding. Extension of the present topographic surface to compensate for folding has not been attempted. Shortening by folding has been restored, therefore, by adding it to the blank space to the west of each strip of present surface. The attempt has been, thus, to achieve palinspasis between, but not within, exposed thrust sheets.

Because some thrust faults terminate between cross-sections, it was necessary to introduce some distortion in plan of most of the strips representing the present surface, in the course of restoration. This may reflect, albeit crudely, tectonic distortion in plan of the individual thrust sheets during their emplacement.

Points I and II at the margins of the restored strip are shown in their present and restored positions.

References

- Campbell, R.B., Mountjoy, E.W., and Struick, L.C., 1982. Structural cross-section through south-central Rocky and Cariboo Mountains to the Coast Range; Geological Survey of Canada, Open File 844.
- Norris, D.K., 1971. The geology and coal potential of the Cascade Coal Basin, in A guide to the geology of the eastern Cordillera along the Trans Canada Highway between Calgary, Alberta and Revelstoke, British Columbia, Halliday, I.A.R. and Mathewson, D.H. (eds.): Alberta Society of Petroleum Geologists, Calgary, p.25-39.
- Price, R.A. and Farmor, P.R., 1982. Structure section of the Cordilleran fold and thrust belt west of Calgary, Alberta; Geological Survey of Canada, Open File 882.

Citation

This map should be cited as follows:
Aitken, J.D. 1988. Palinspastic map of the southern Canadian Rocky Mountains; Geological Survey of Canada, Open File 1696.