

Fundy basins, respectively). The  $^{40}\text{Ar}/^{39}\text{Ar}$  ages of the High Atlas basalt flows are indistinguishable from their North American counterparts (Marzoli et al., 2004), although no high-Fe quartz-normative (HFQ) or low-Ti quartz-normative (LTQ) flows, present in the Newark basin, have been identified in the Central High Atlas. In the other Moroccan basins, there are only one or two basaltic units of HTQ composition. Throughout, the basaltic units are interbedded or overlain by limestone-rich cyclical sequences. These preserve a gradient from fully continental facies in western Morocco, comparable to those in the Fundy basin outcrops, to fully marine facies with newly discovered well-preserved echinoderms in easternmost Morocco, thereby documenting a marine connection from western-most Tethyan basins during at least part of the rift sequence. The carbonate-dominated thin units are succeeded by predominately red clastic rocks which are unconformably overlain by post-rift Early Jurassic conglomerates and marine strata.

In the subsurface of several Moroccan basins, the cyclical red beds of TSIII and TSIV give way to thick salt sequences (série salifère inférieure et série salifère supérieure of BRPM, 1955), with an order of magnitude higher accumulation rates. In these settings the Triassic-Jurassic boundary is entirely within bedded halite and potash salts (e.g. Khémisset basin).

The paleomagnetic polarity stratigraphy of outcropping Bigoudine Formation in the Argana basin (TSIII and lower TSIV) allows correlation with the Newark GPTS. This correlation: (1) indicates that the deposition of the Bigoudine began at about 218 Ma and ended at about 201 Ma, with the conformable outpouring of the Argana Basalt and (2) demonstrate that the major cyclical wet climatic intervals in the Newark basin sequence can be recognized in the Argana basin and therefore the synchrony of major climate changes caused by the very long term celestial mechanical cycles of a very large part of central Pangea. The polarity stratigraphy also affords tight correlation to the Newark basin extending to individual 20 ky cycles, especially in the lower half of the Bigoudine Formation.

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