Lower Palaeozoic maps

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New reconstructions made for the Copenhagen meeting follow for the Cambrian (540, 520, 500 Ma), Ordovician (480, 465, 460, 450 Ma) and Silurian (440, 430, 420 Ma), at times requested by David Harper.

Be aware that they show units of the crust and not the distribution of land and sea. All the boundaries shown are largely the result of post-Palaeozoic tectonics and thus do not necessarily reflect their shapes at the dates of the maps. Some modern coastlines are included (e.g. in Baltica) to aid recognition.

Also remember that most major units are palaeomagnetically constrained latitudinally and in their orientation, but not longitudinally; however, if you wish to move them longitudinally, the effect on earlier and later maps should be considered.

Some Lower Palaeozoic reconstructions were published by Cocks and Torsvik (2002) in *Journal of the Geological Society, London,* **159,** 631-44, but the following areas have since been substantially revised.

1. Baltica and Kara (Northern Taimyr and Severnaya Zemlya).

2. Siberia, which now includes the peri-Siberian and adjacent Mongolian and Kolyma-Omolon terrane areas.

3. Laurentia, which now includes revision of the Arctic area, Svalbard, Bjørnøya, and the adjacent Arctic-Alaska-Chukotka terrane unit, among others.

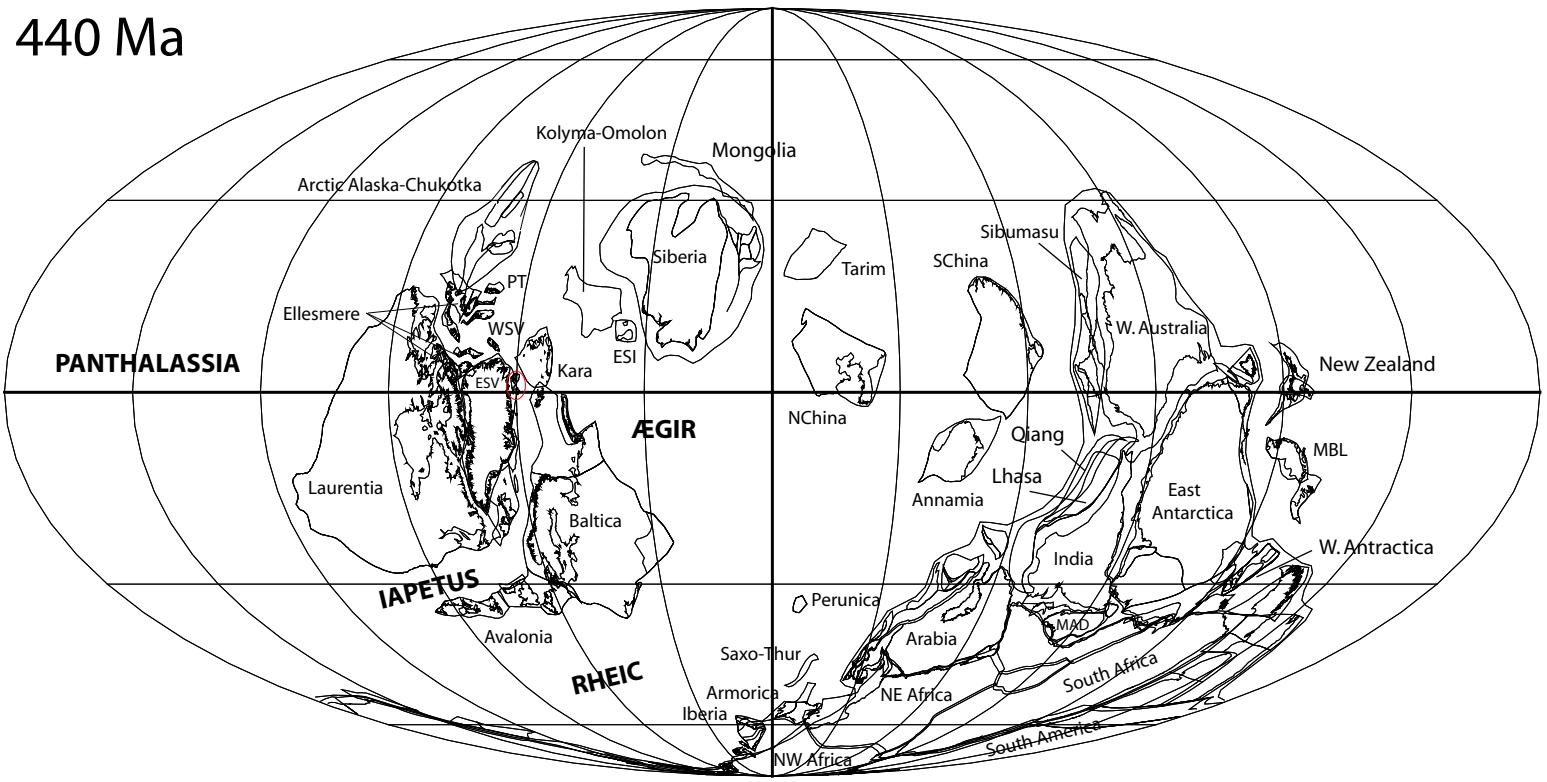
4. Gondwana: its northern and eastern margins from Iberia to New Zealand (including South China and Sibumasu), and also the Mexican terranes. Within Gondwana the margins of various earlier (e.g. in Africa) and later (e.g. India) units are shown.

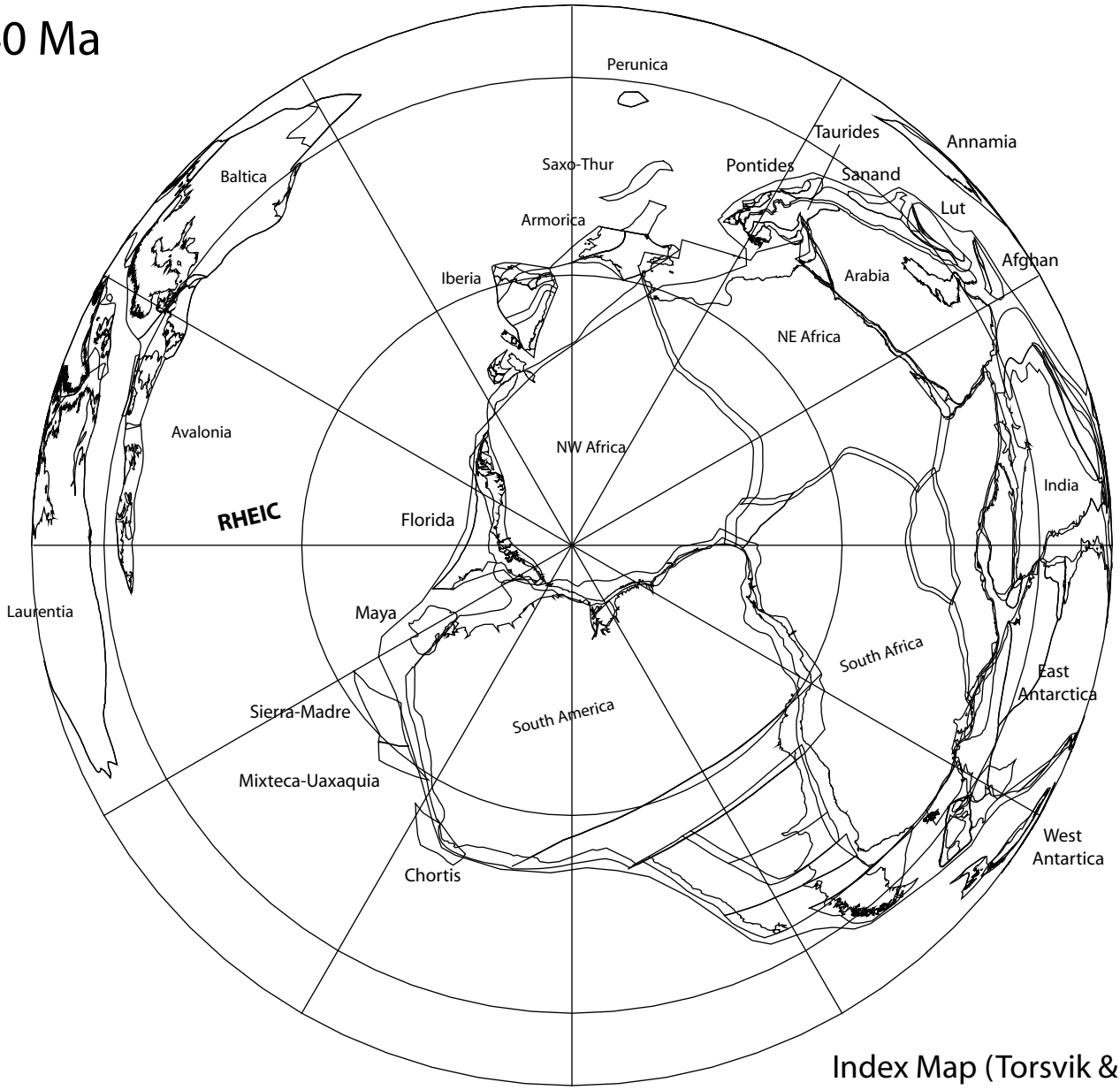
Units which remain poorly constrained are Annamia (Indochina) and Tarim, particularly in their relationships to North China (Sinokorea).

Absent from these maps are island arcs (some of which contain Precambrian cores), apart from three in the Iapetus Ocean for which there are reliable palaeomagnetic data. Also absent are the many terranes which eventually amalgamated to become the Kazakhstania continent, but not until the Upper Palaeozoic; although the Chu-Ili Terrane of Kazakhstan is shown provisionally on the 465 and 460 maps only to the E of Baltica. Also absent are subduction zones, spreading ridges and various other tectonic boundaries, particularly those within the oceans.

Abbreviations on the map keys on the next page are: ESI, East Siberian Islands, ESV, East Svalbard; MAD, Madagascar; MBL, Marie-Byrd Land; PT, Pearya; Saxo-Thur, Saxothuringia; WSV, West Svalbard.

Software and instructions on how to produce your own maps will soon be on www.geodynamics.no.





Index Map (Torsvik & Cocks 2009)