The PLATES 2003 Atlas of Plate Reconstructions (750 Ma to Present Day)

By
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Progress Report No. 280-0703

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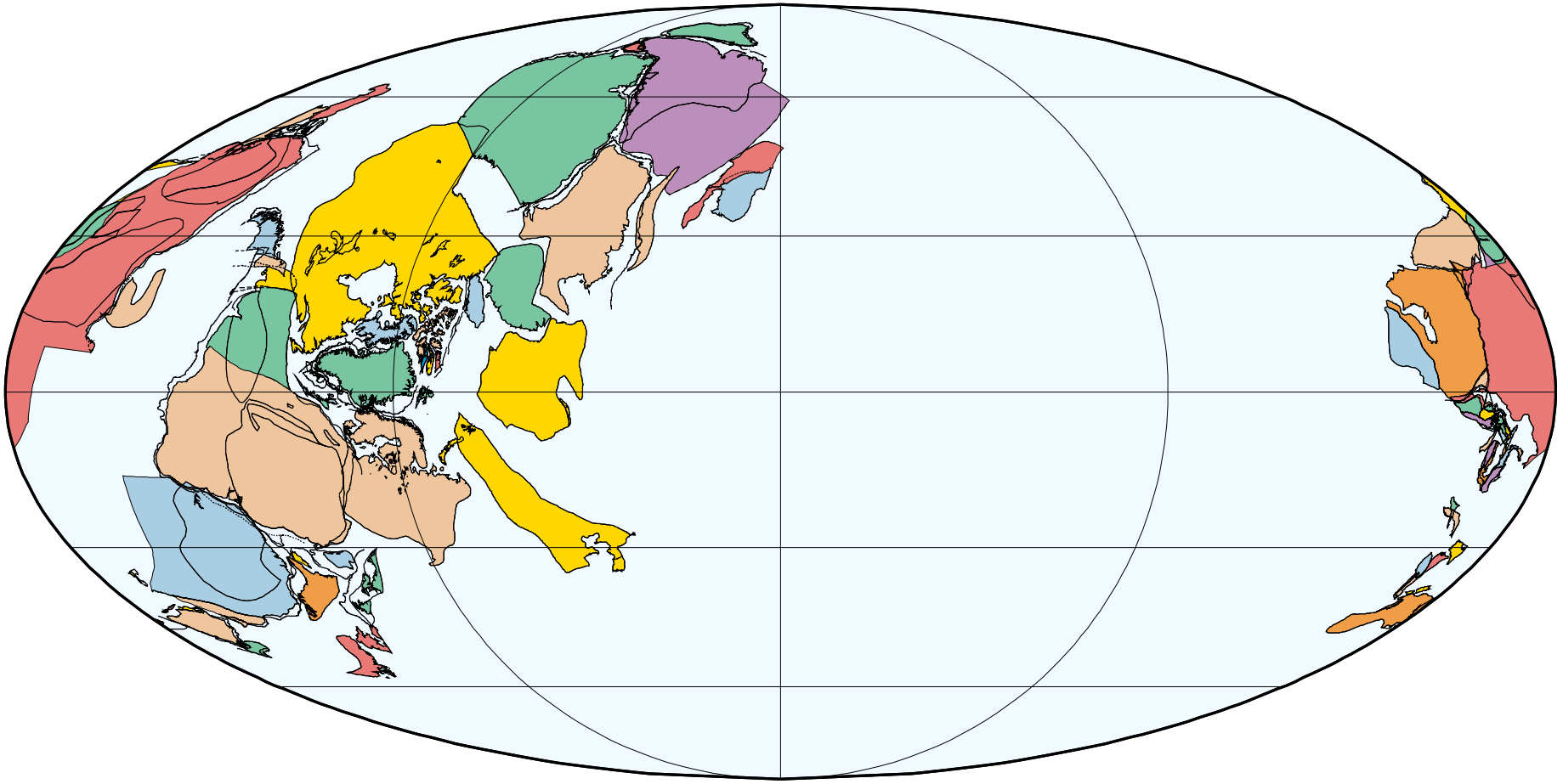
Lawver, L.A., Dalziel, I.W.D., Gahagan, L.M., Martin, K.M., and Campbell, D.A., 2003, The **PLATES** 2003 Atlas of Plate Reconstructions (750 Ma to Present Day), **PLATES** Progress Report No. 280-0703, UTIG Technical Report No. 190, 97 pp.

This atlas was originally produced in July, 2003.



750 Ma

Late Proterozoic

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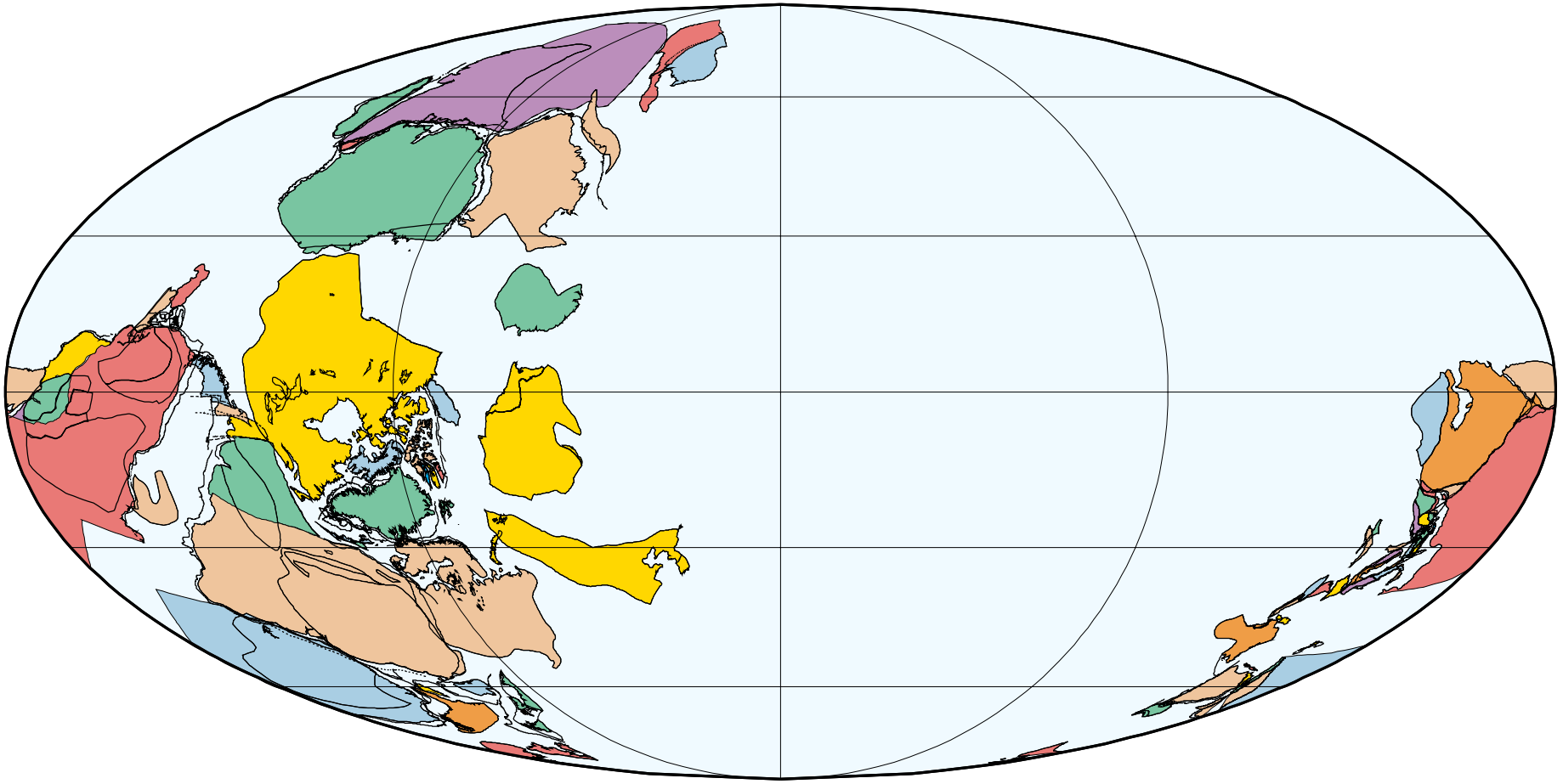
July 2003



700 Ma

Late Proterozoic

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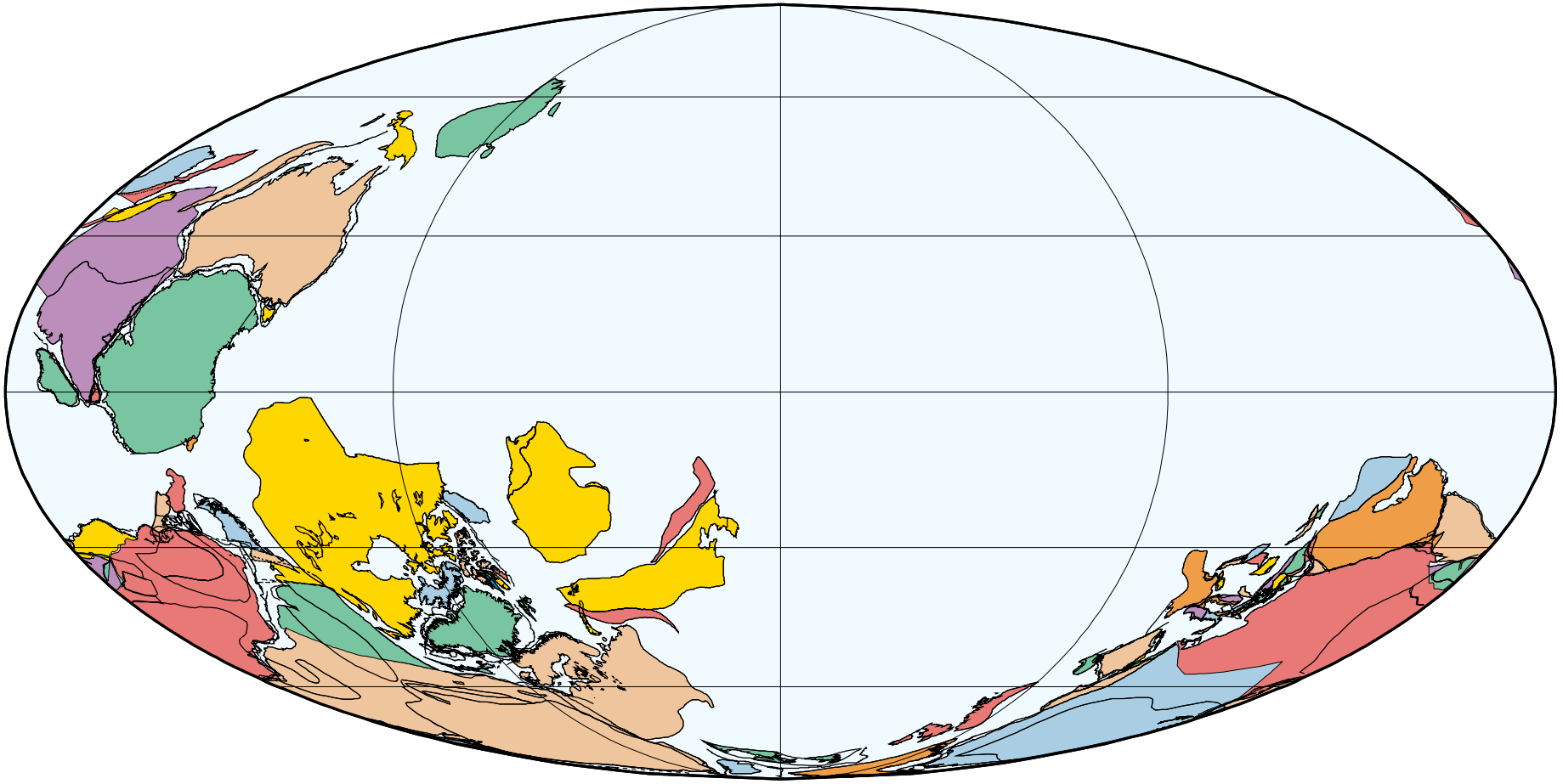

650 Ma

Late Proterozoic

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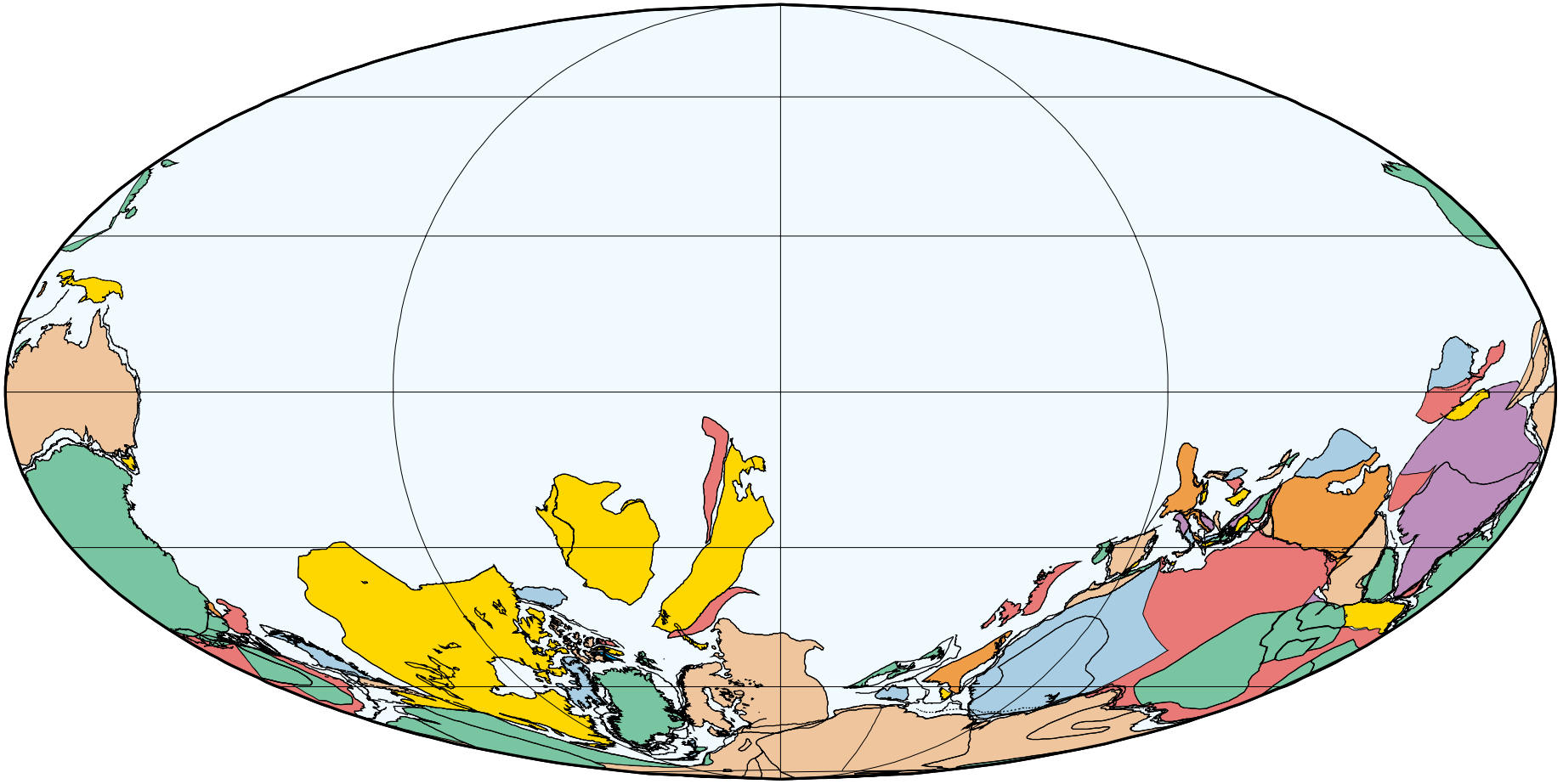

600 Ma

Late Proterozoic

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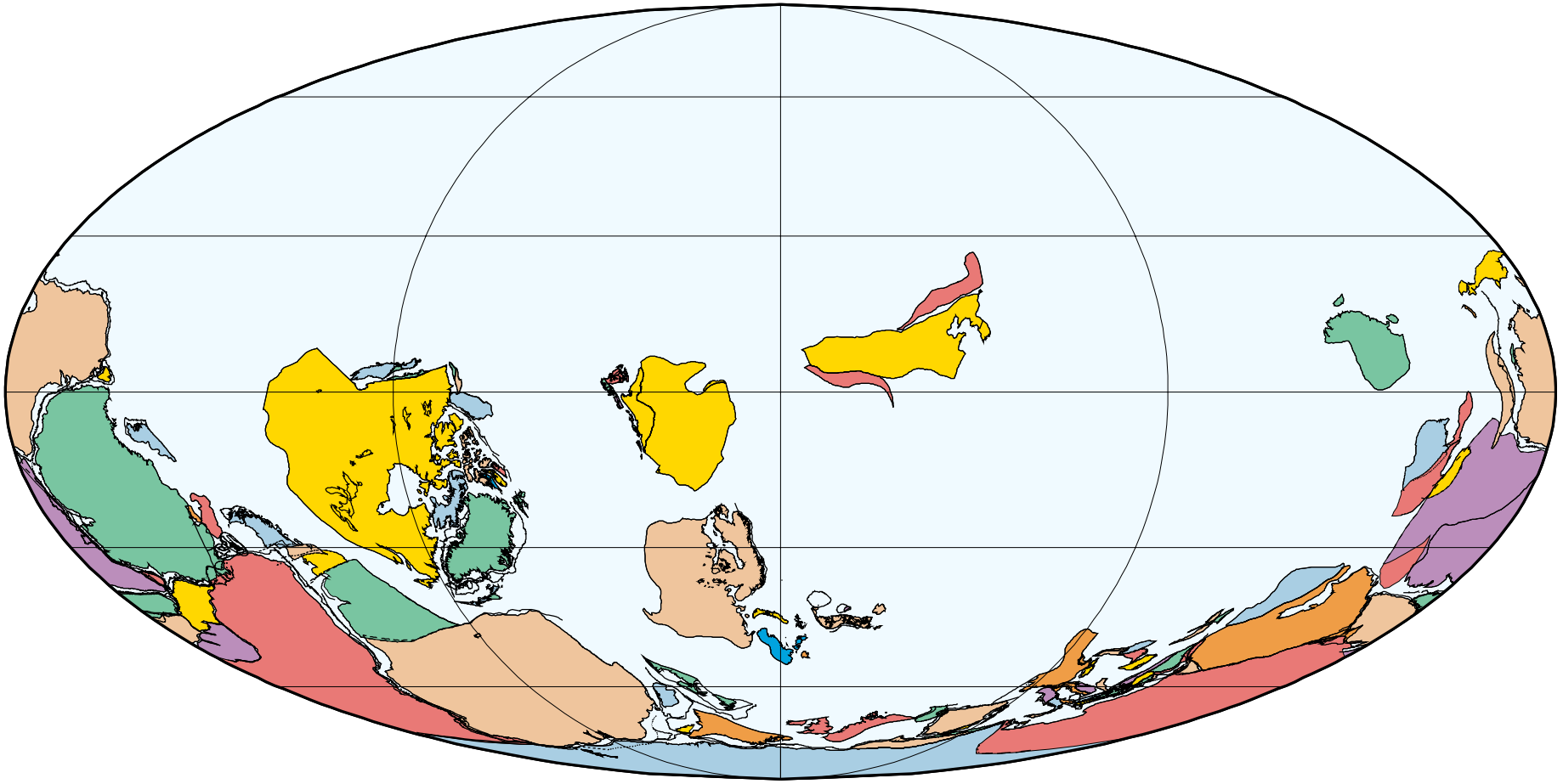

540 Ma

Nemakitian-Daldynian (Early Cambrian)

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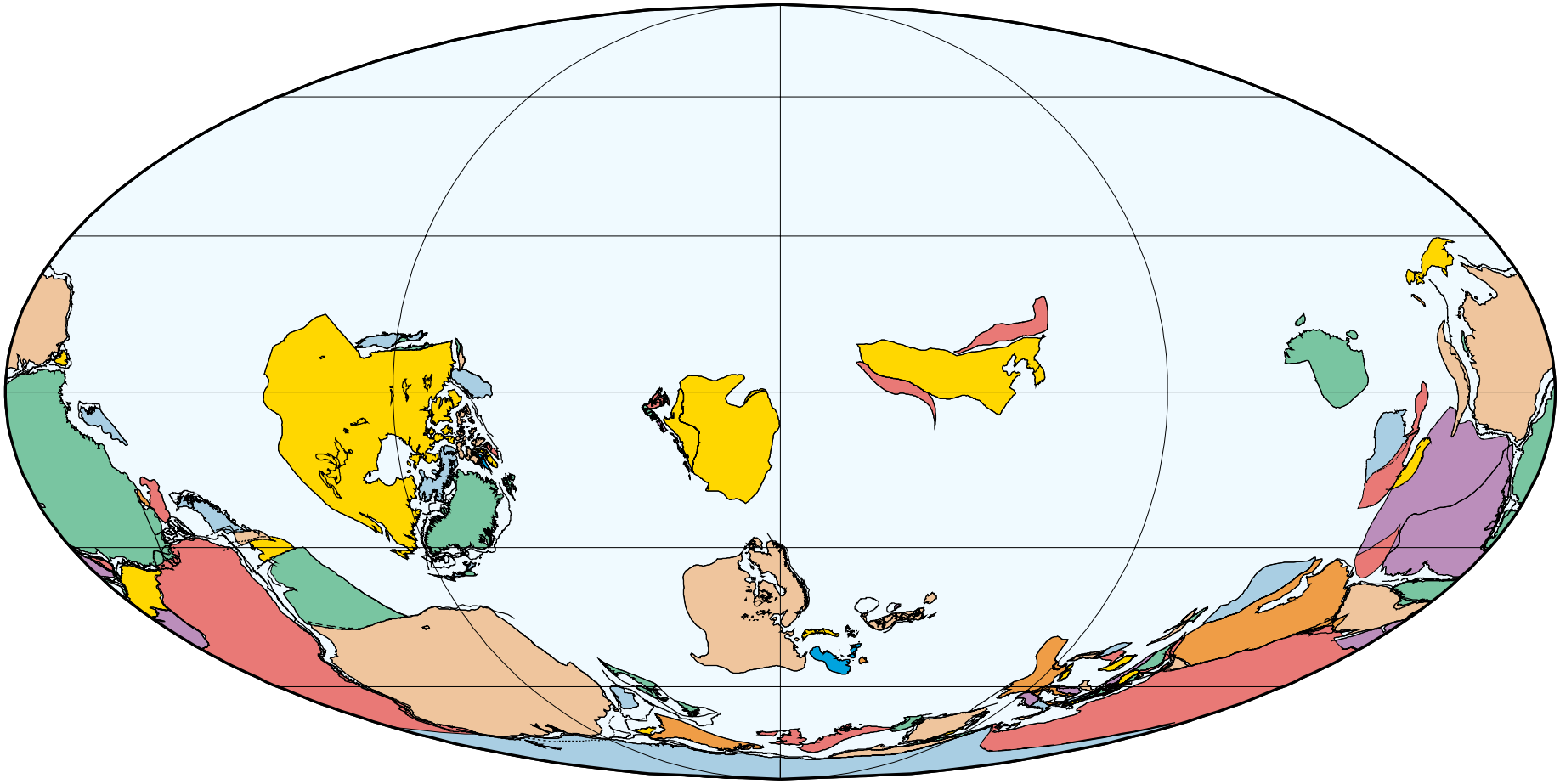

530 Ma

Late Tommotian/Early Atdabanian (Early Cambrian)

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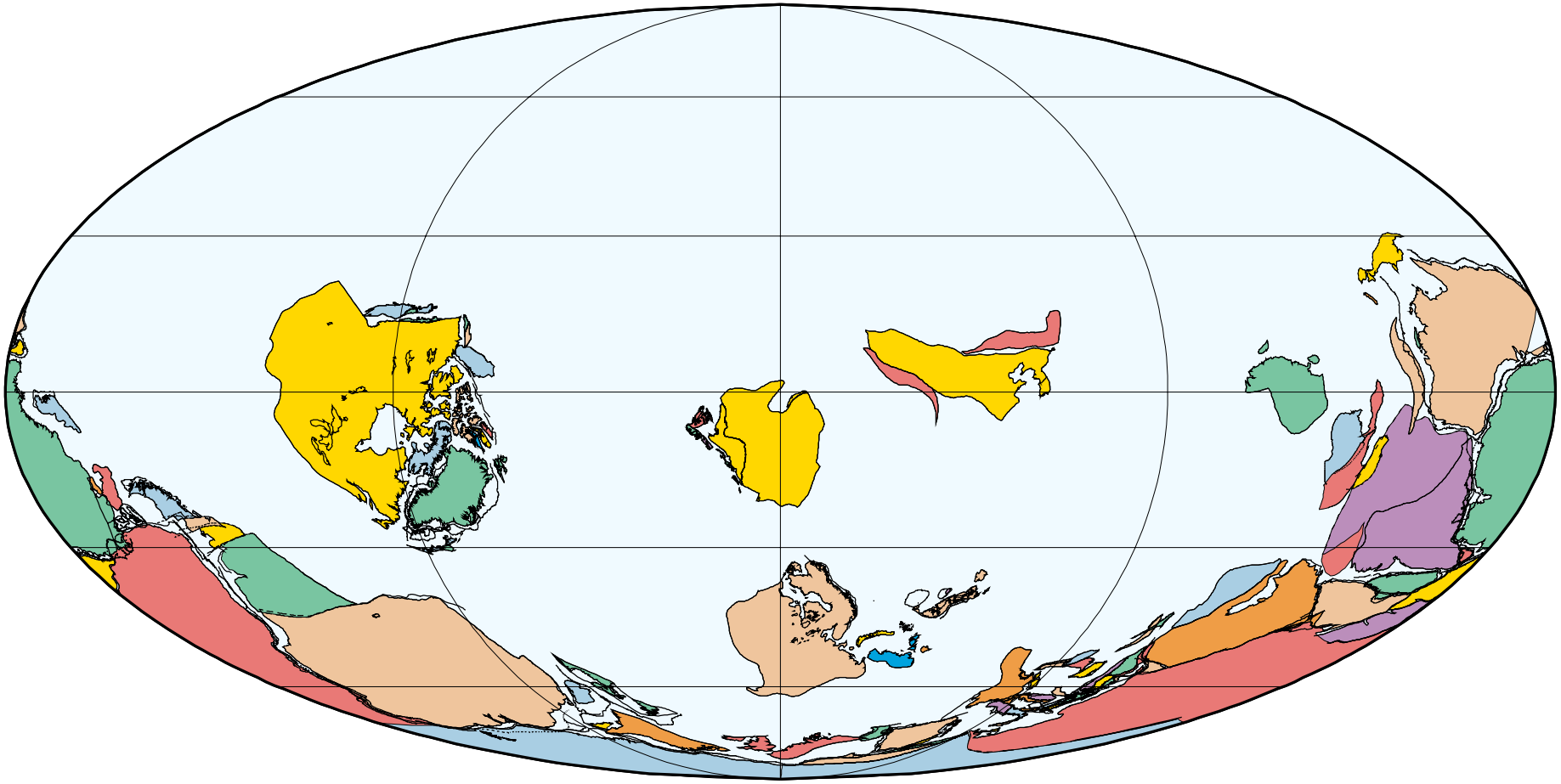

520 Ma

Lenian (Early Cambrian)

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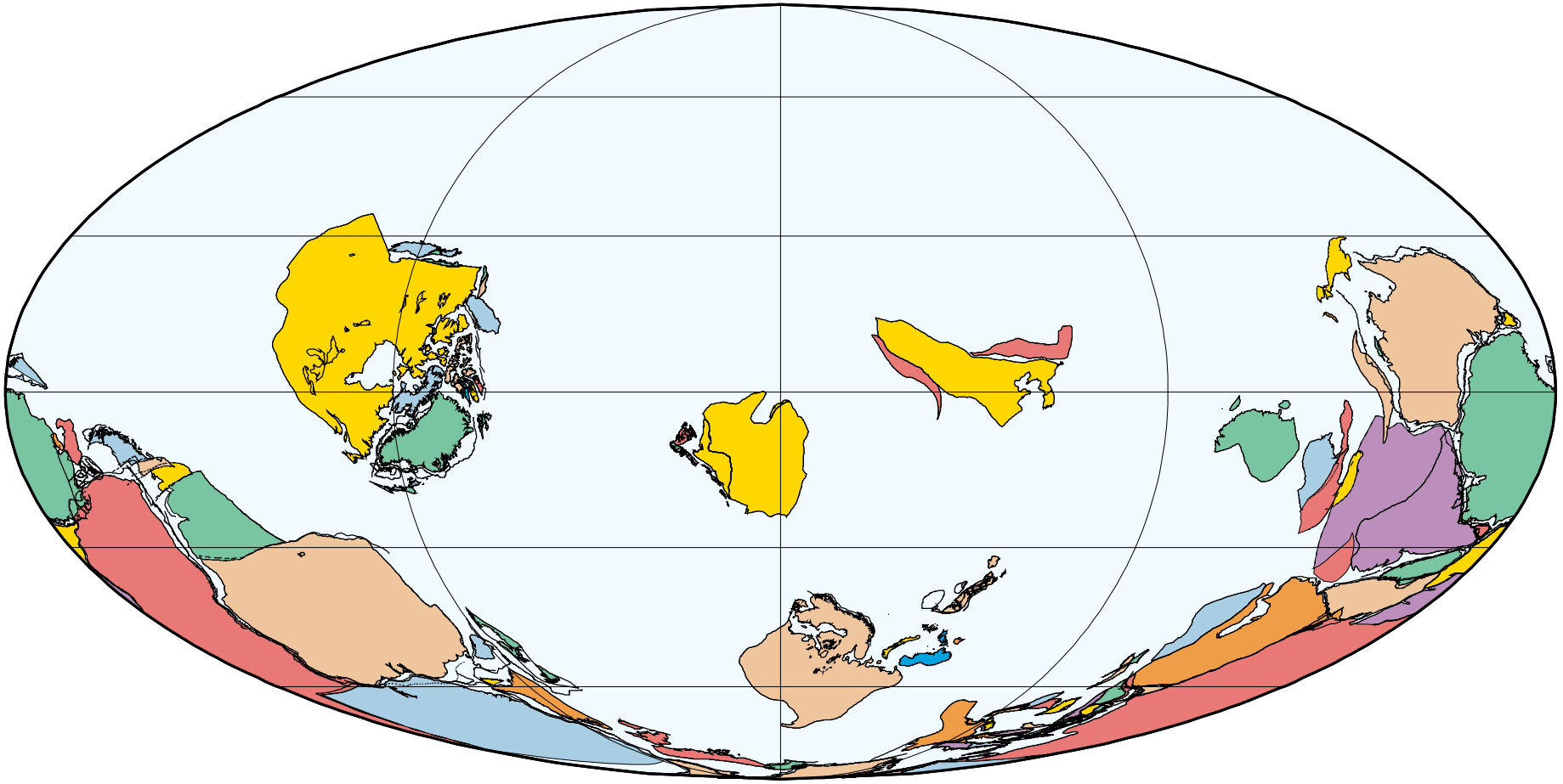

510 Ma

Middle Cambrian

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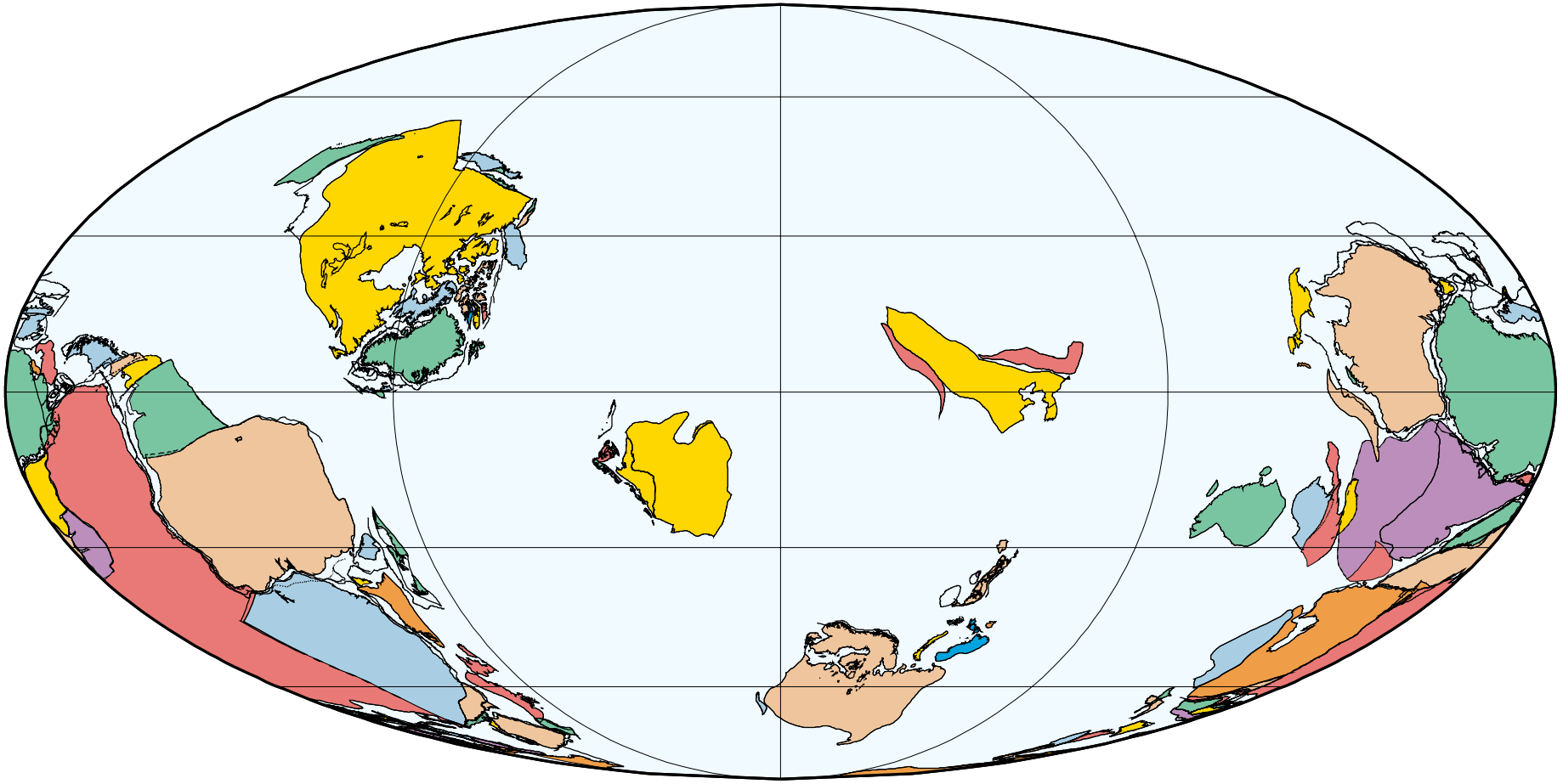

500 Ma

Late Cambrian

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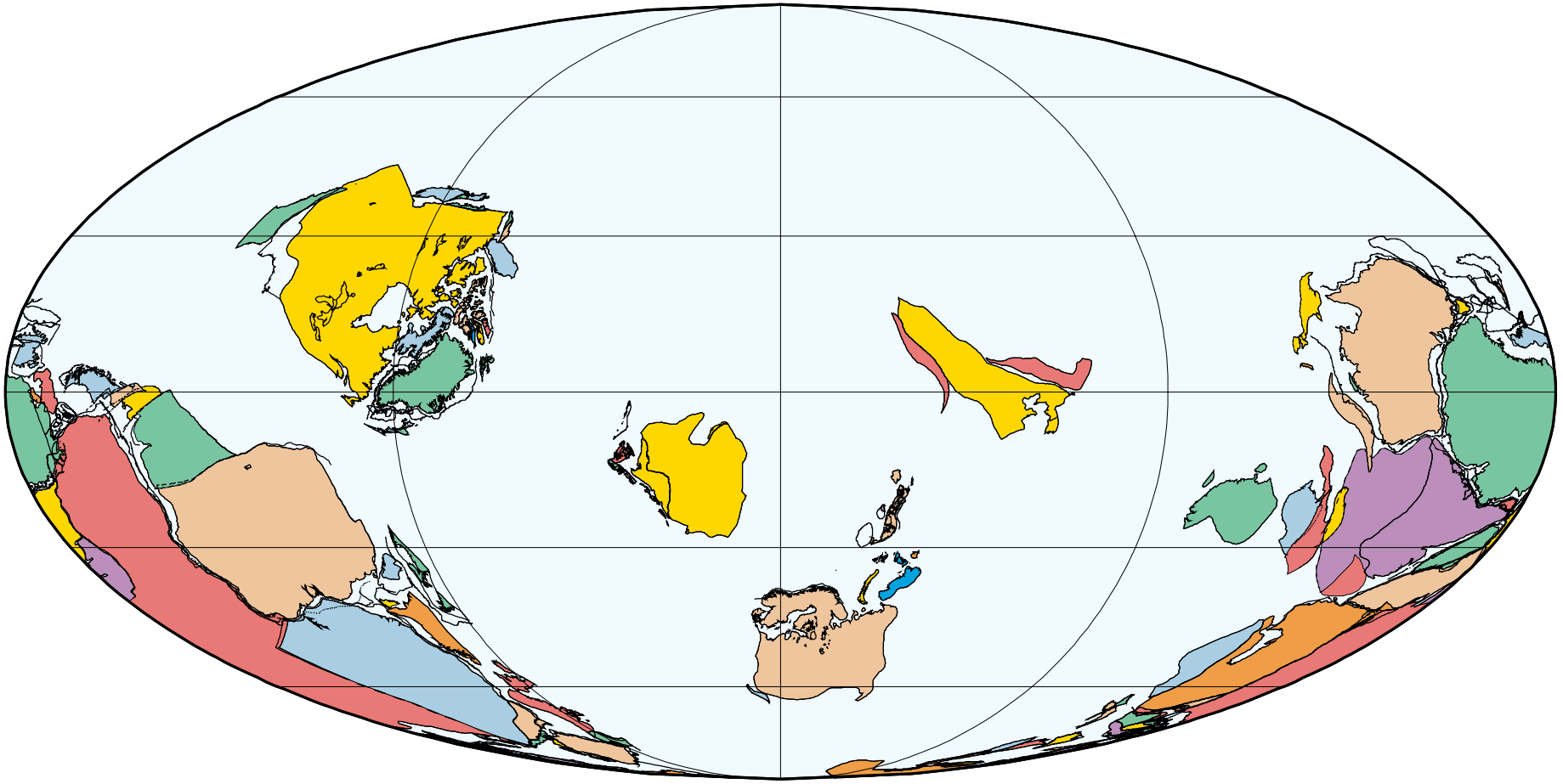

490 Ma

Tremadocian (Early Ordovician)

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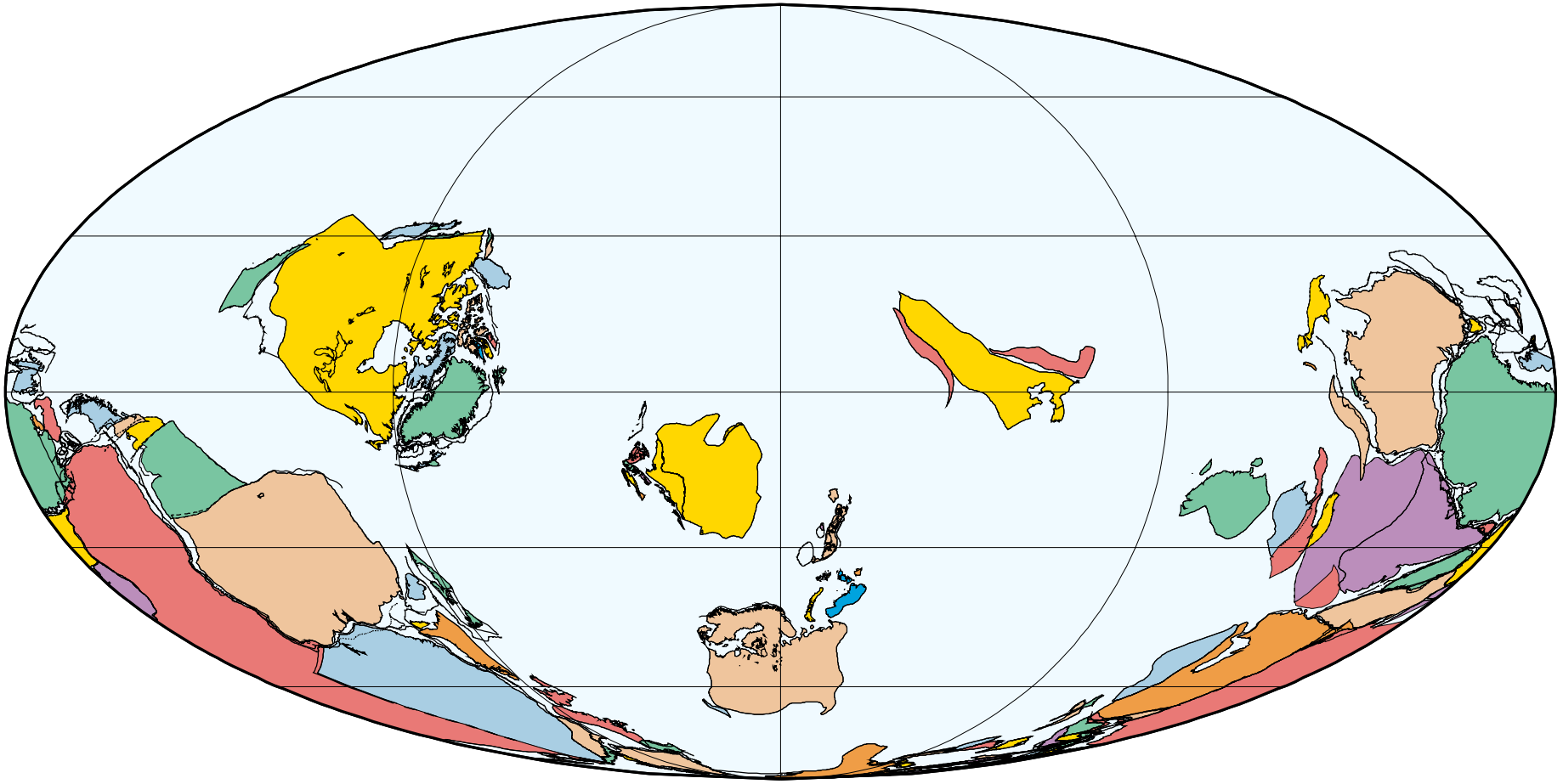

480 Ma

Arenigian (Early Ordovician)

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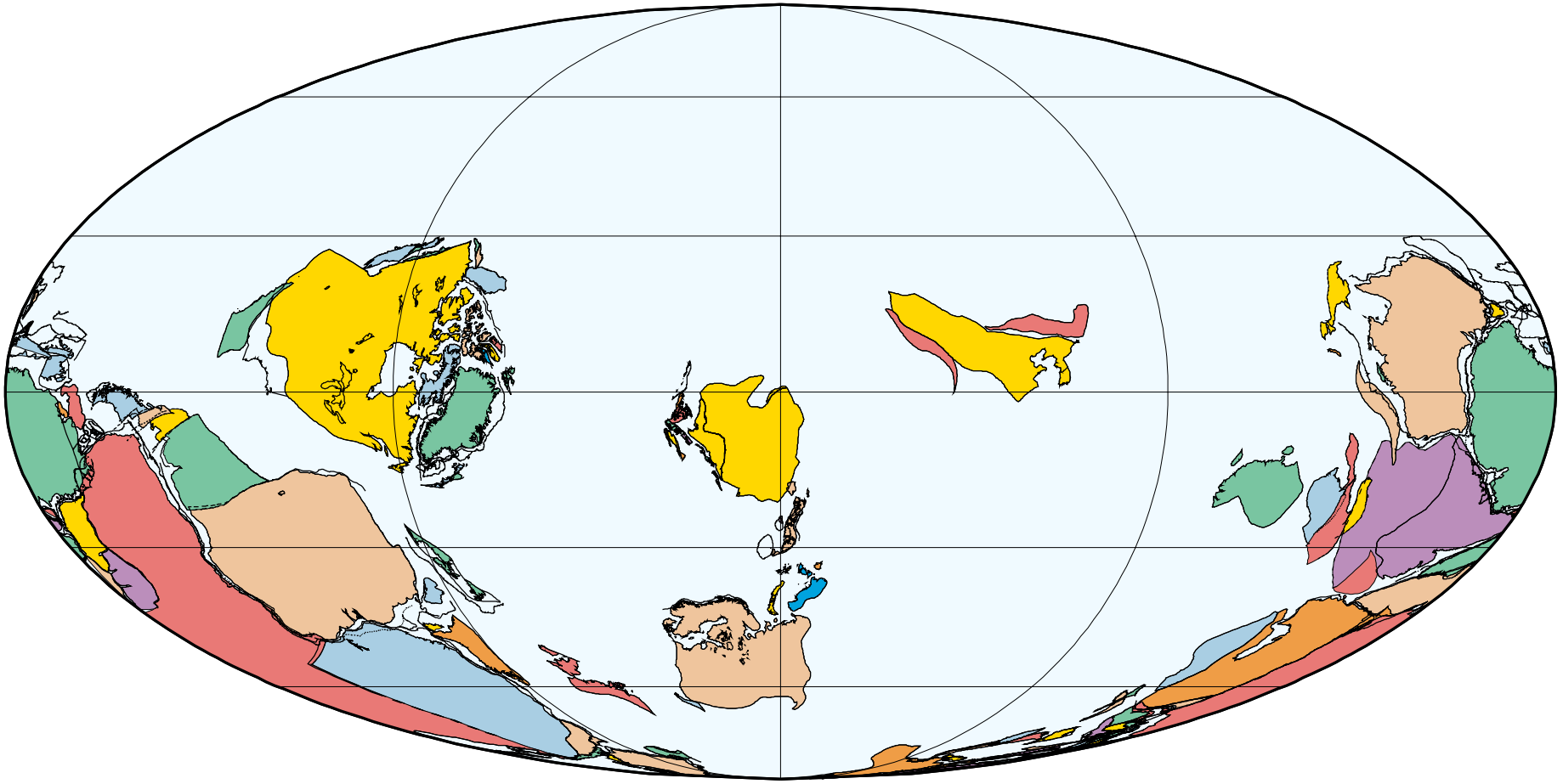

470 Ma

Late Arenigian/Early Llanvirnian (Early/Middle Ordovician)

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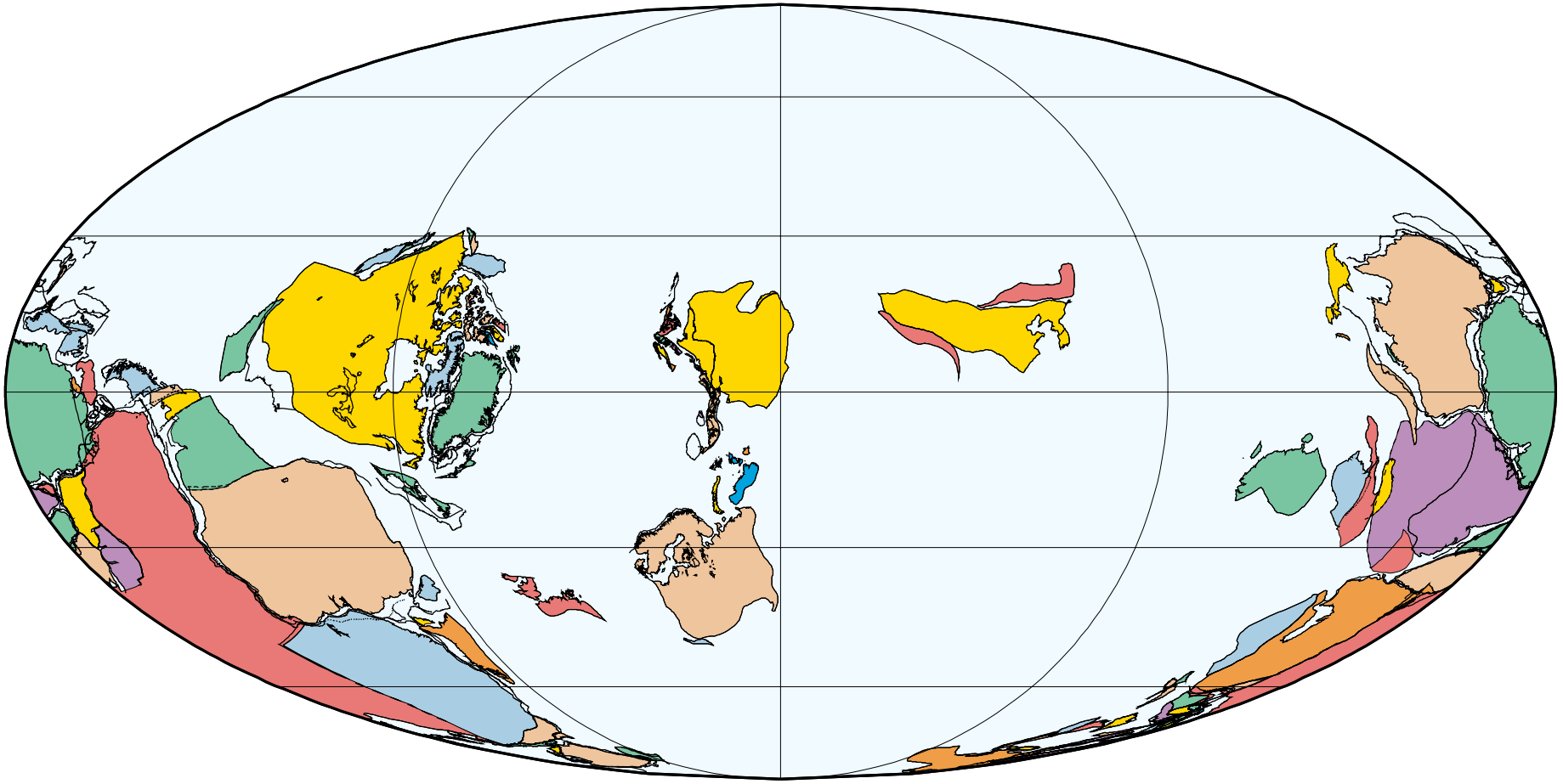

460 Ma

Llandeilan (Middle Ordovicion)

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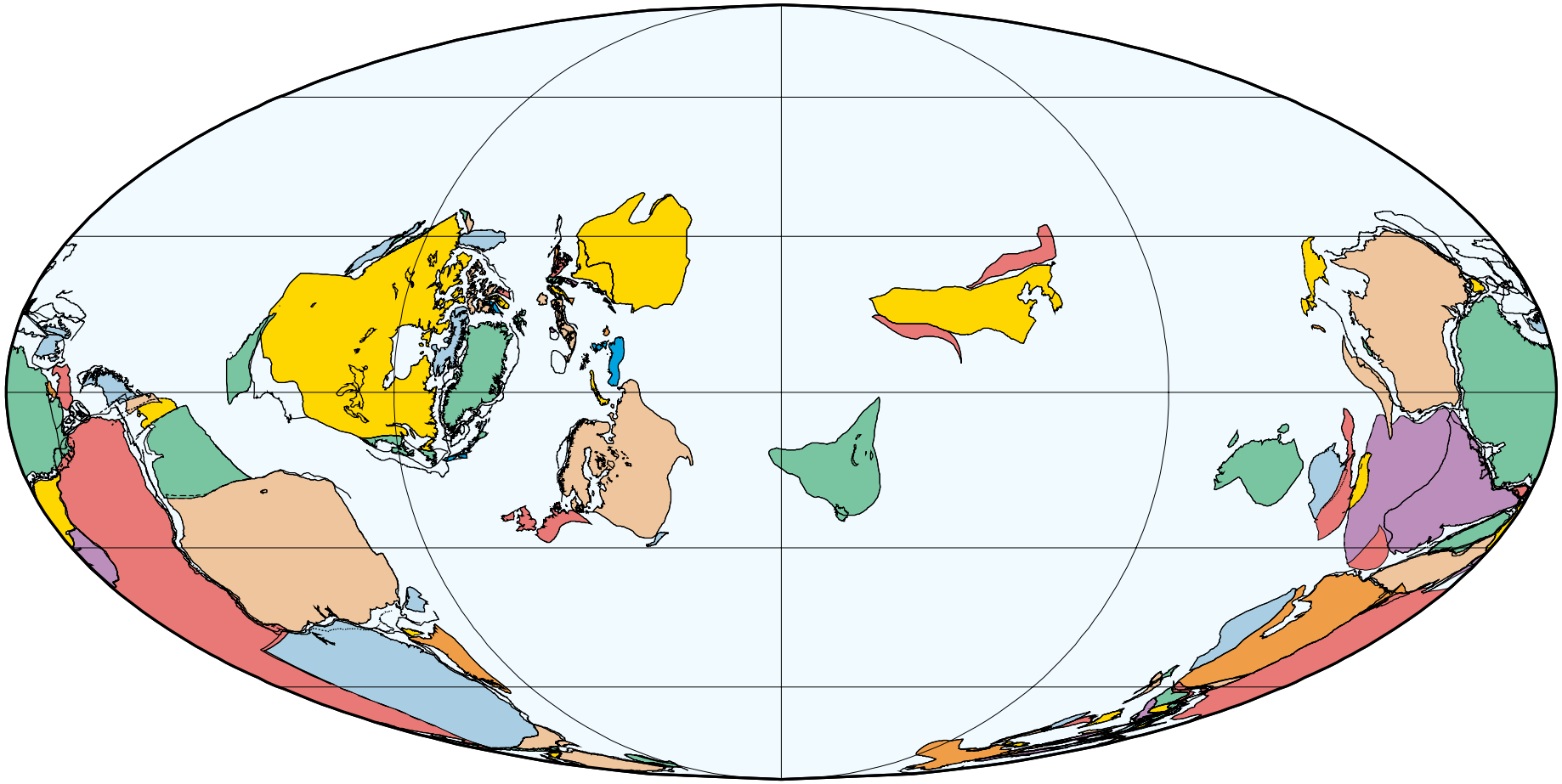

450 Ma

Caradocian (Late Ordovician)

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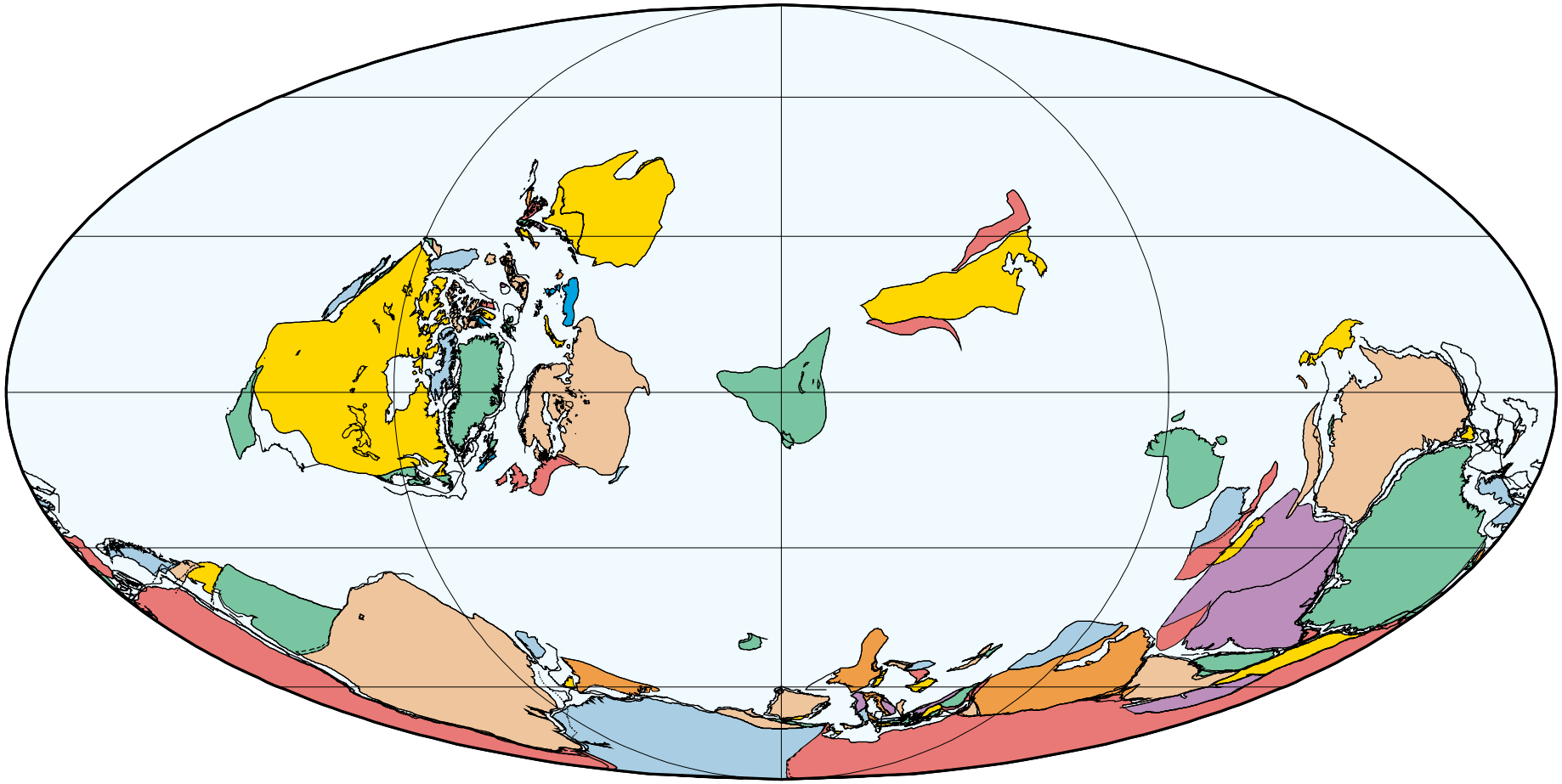

440 Ma

Early Llandoverian (Early Silurian)

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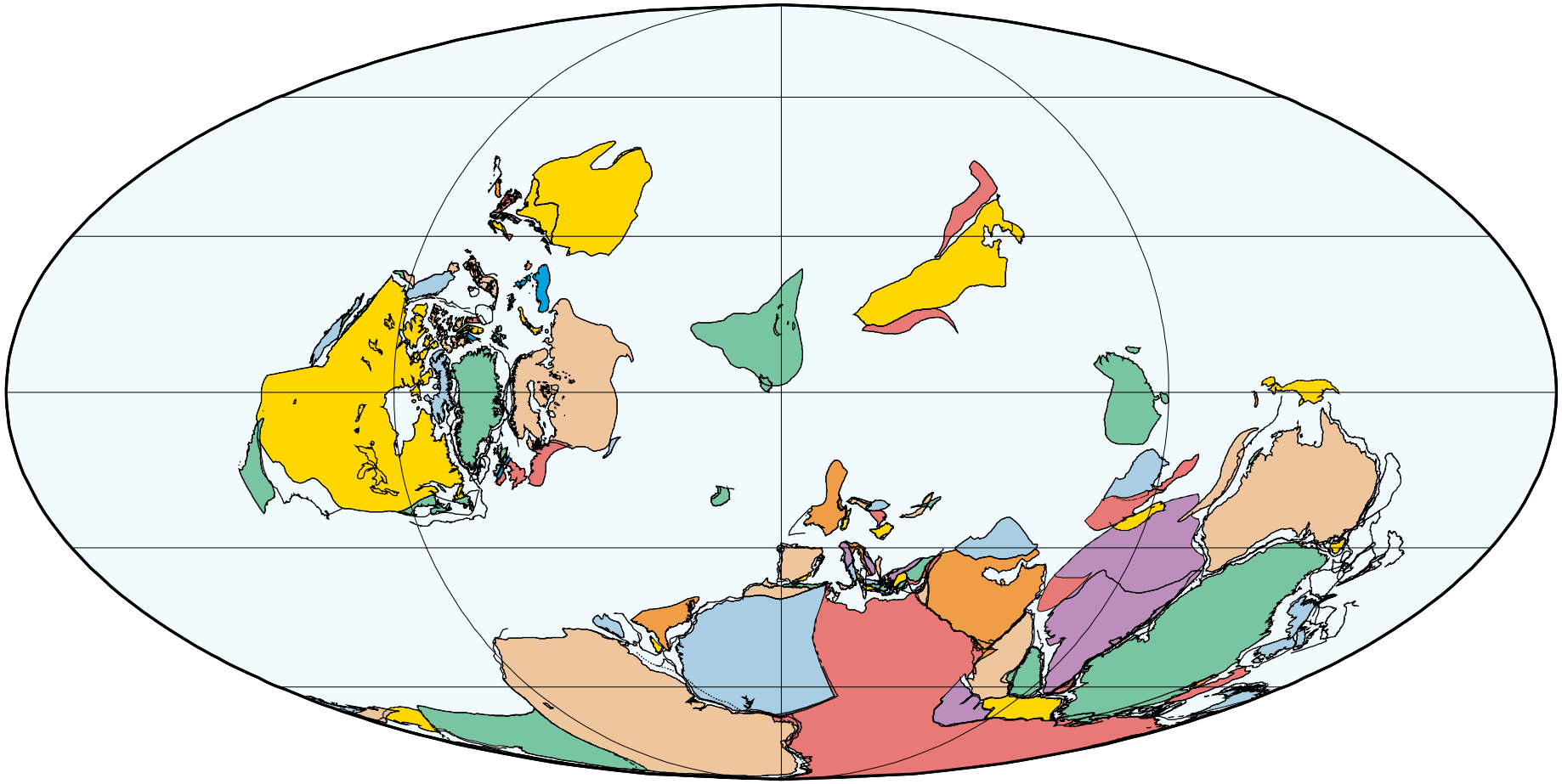

430 Ma

Late Llandoverian (Early Silurian)

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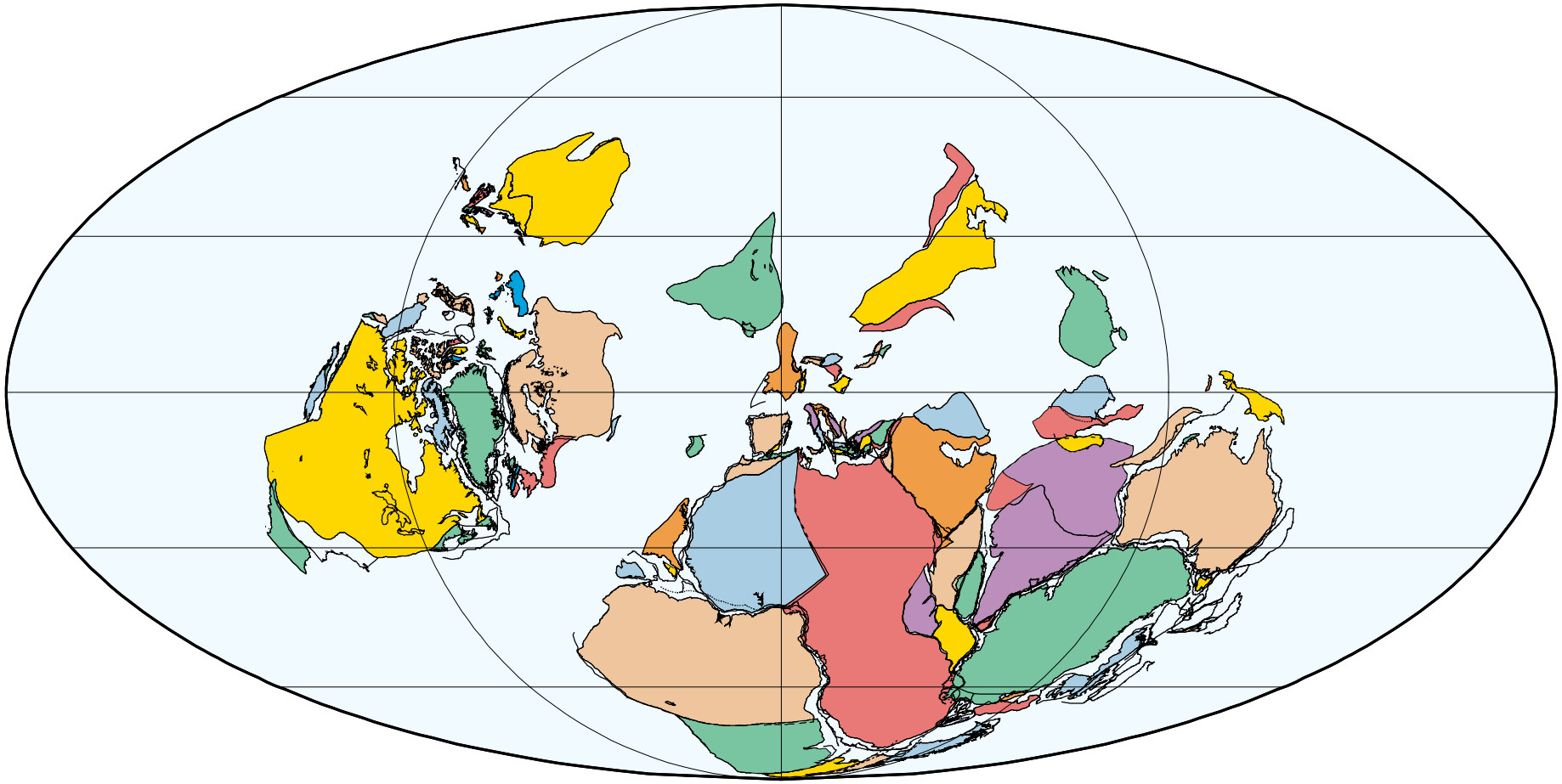

420 Ma

Ludlovian (Late Silurian)

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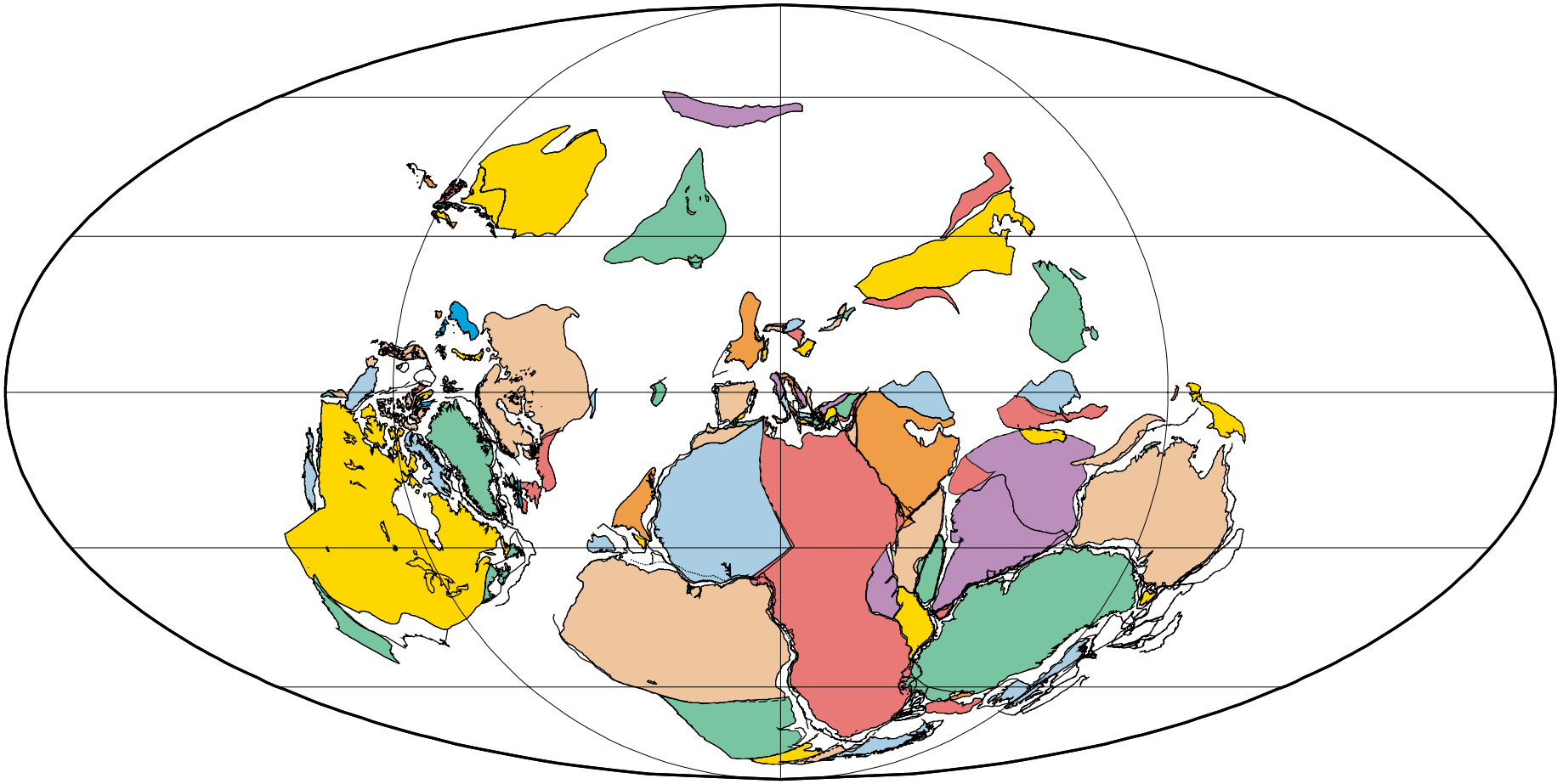

410 Ma

Early Praghian (Early Devonian)

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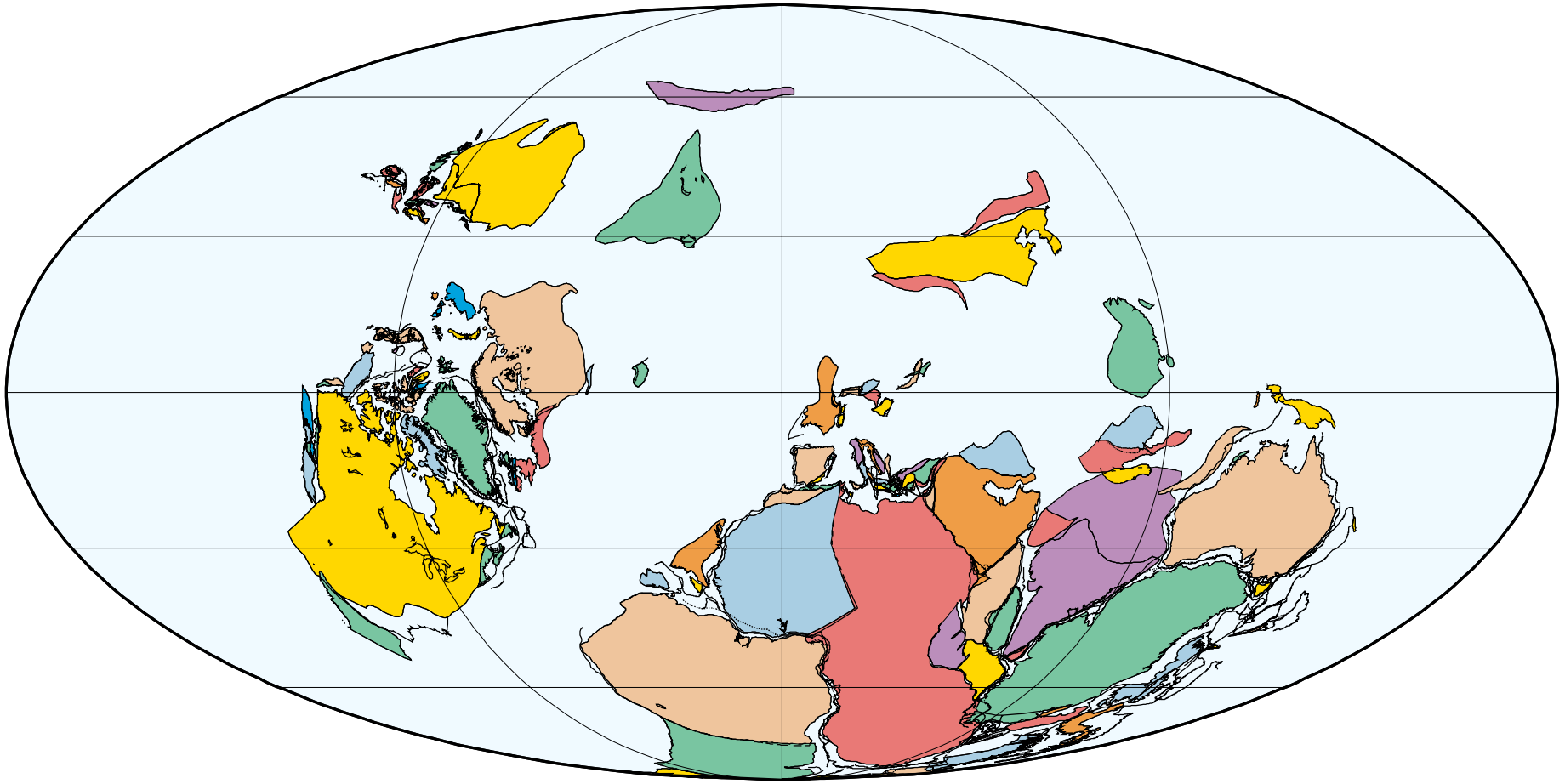

400 Ma

Late Praghian/Early Emsian (Early Devonian)

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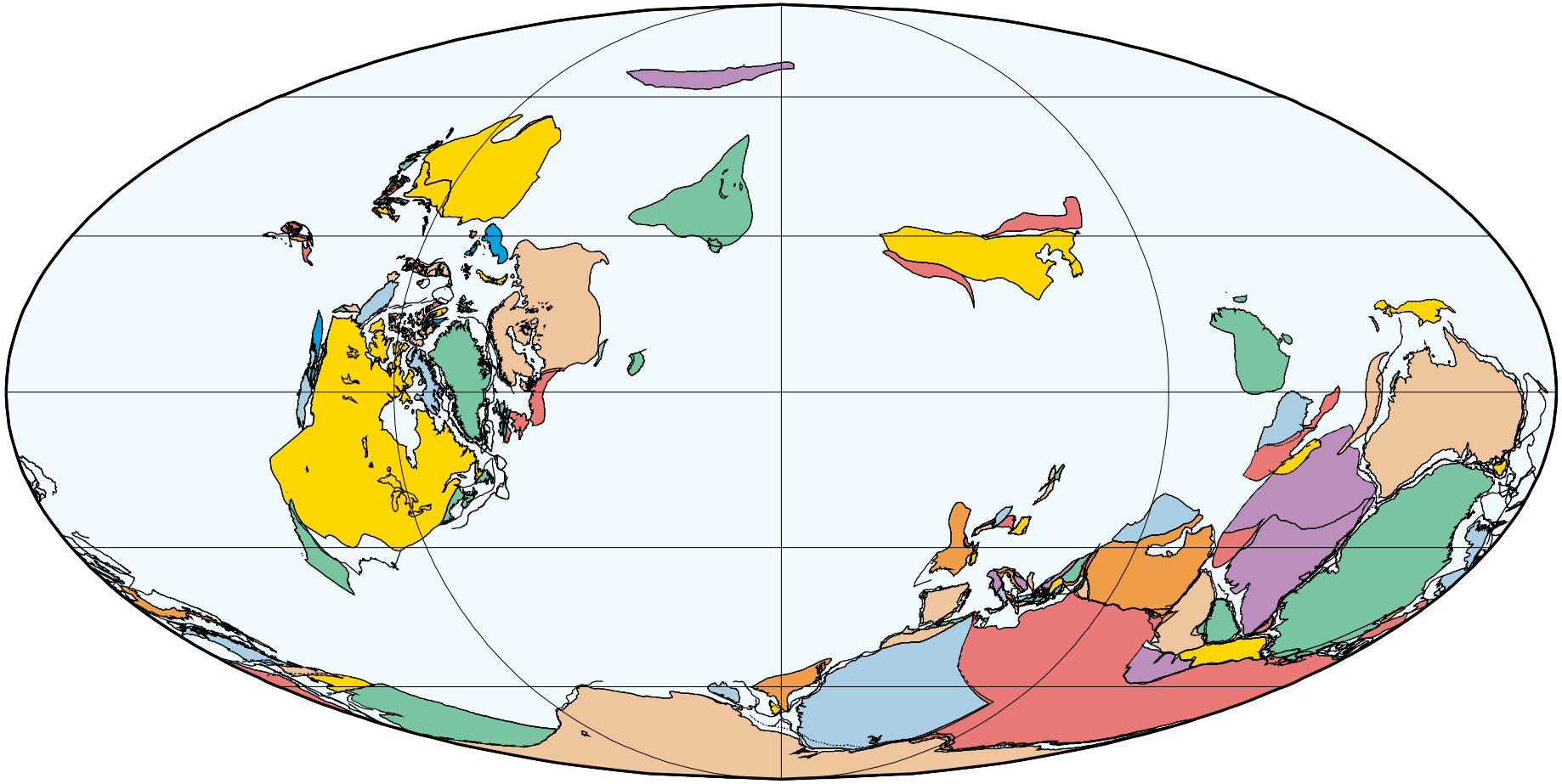

390 Ma

Early Eifelian (Early Devonian)

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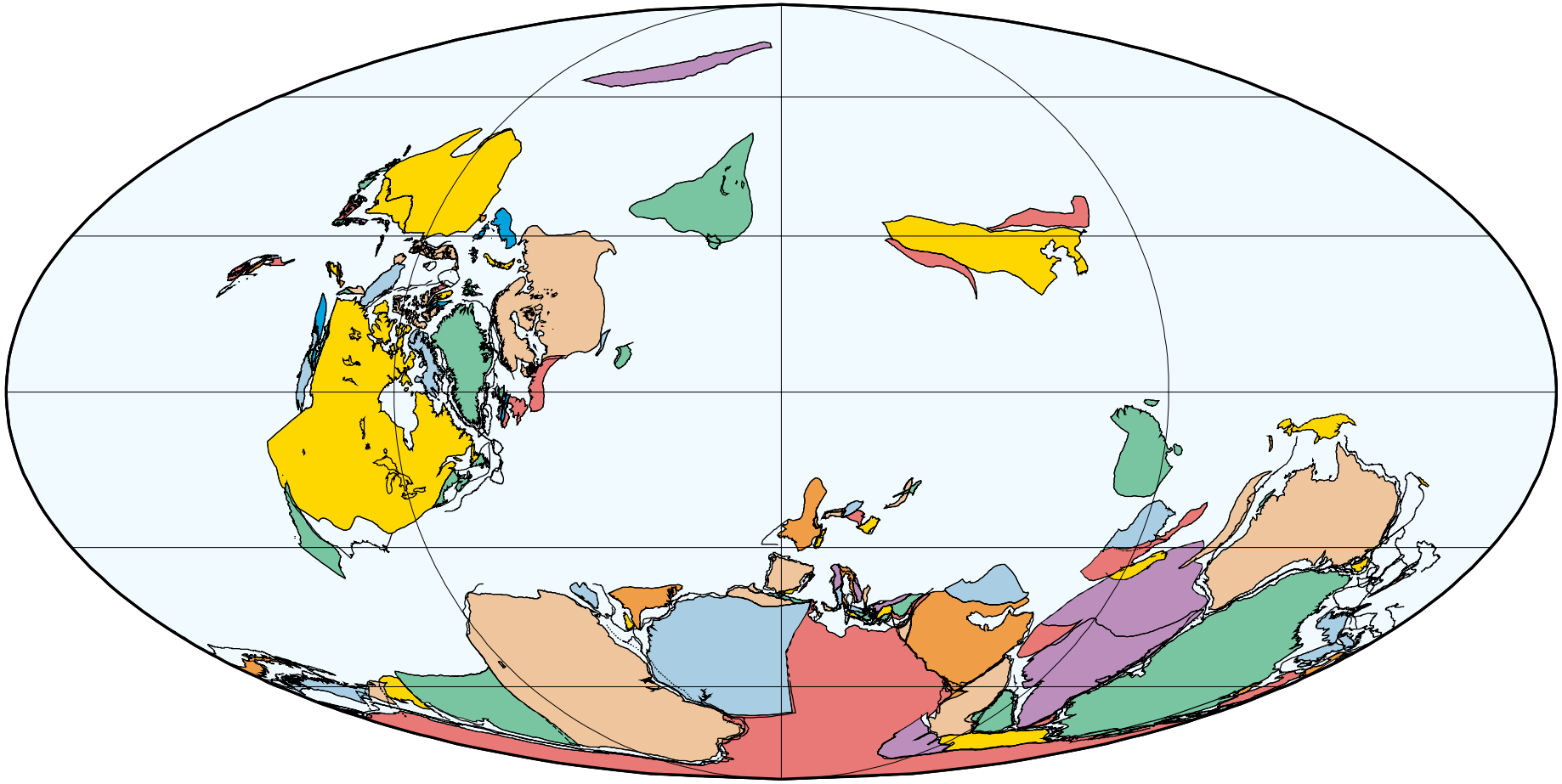

380 Ma

Late Eifelian/Early Givetian (Middle Devonian)

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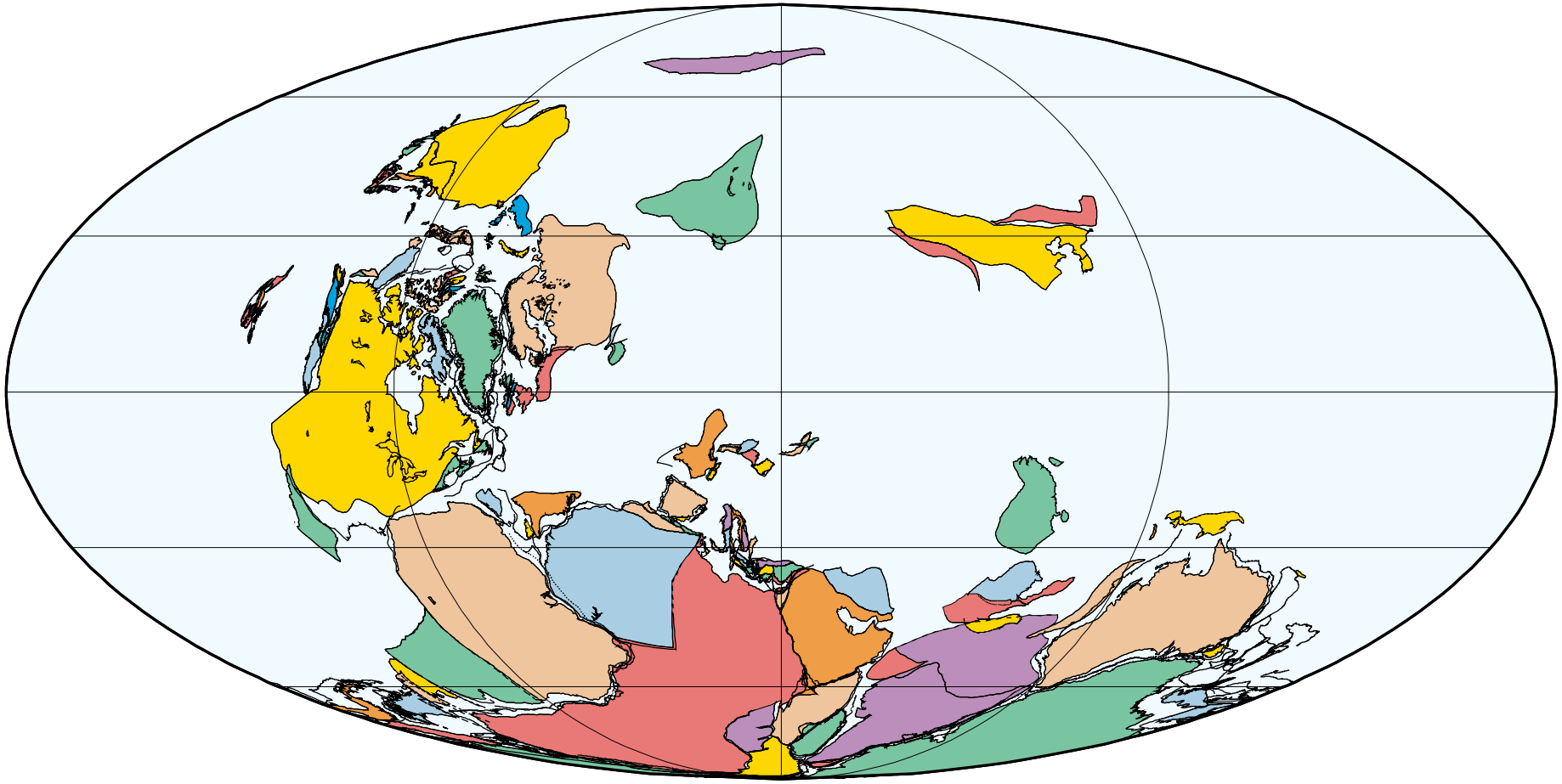

370 Ma

Late Givetian/Early Frasnian (Late Devonian)

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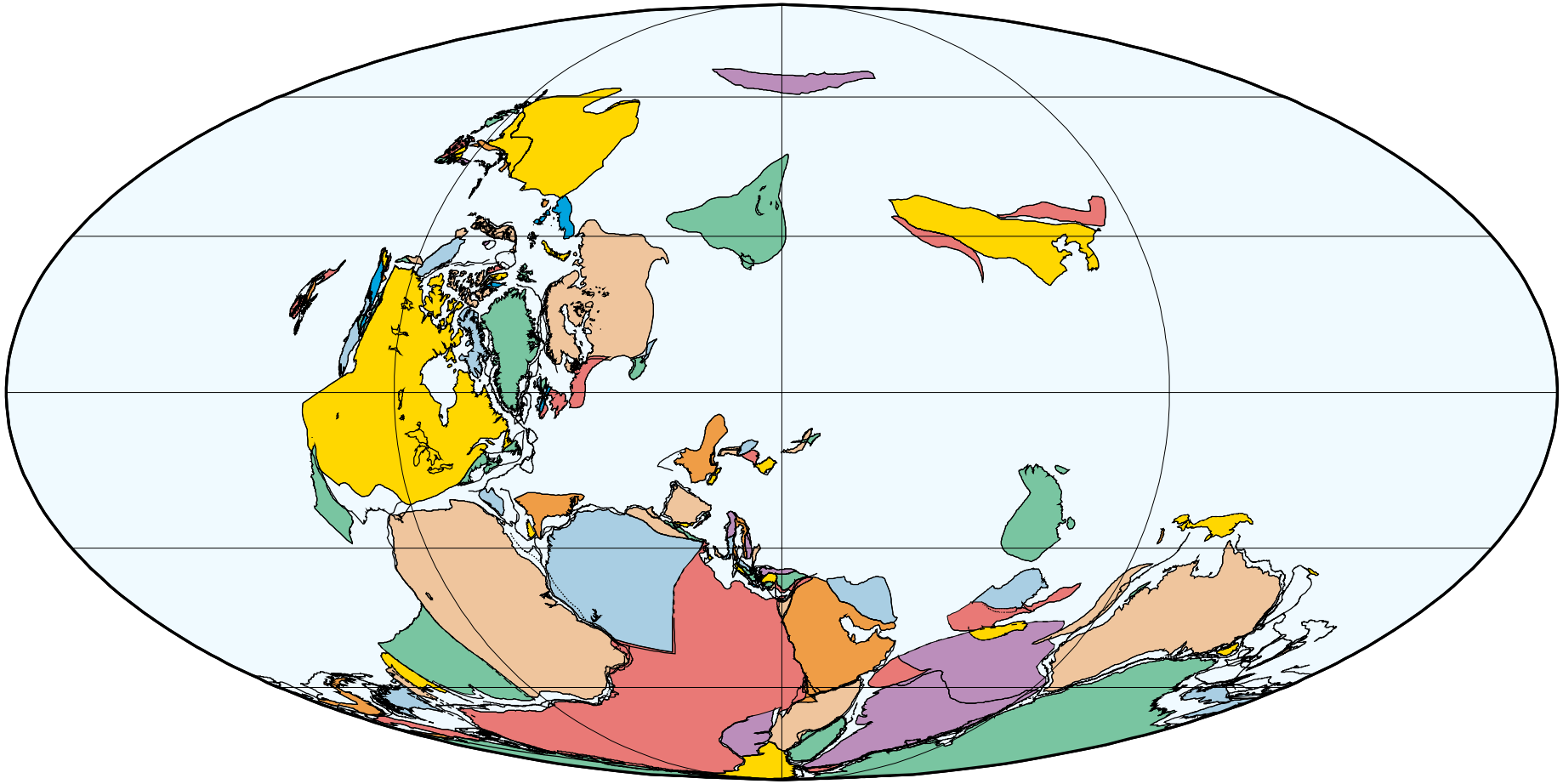

360 Ma

Famennian (Late Devonian)

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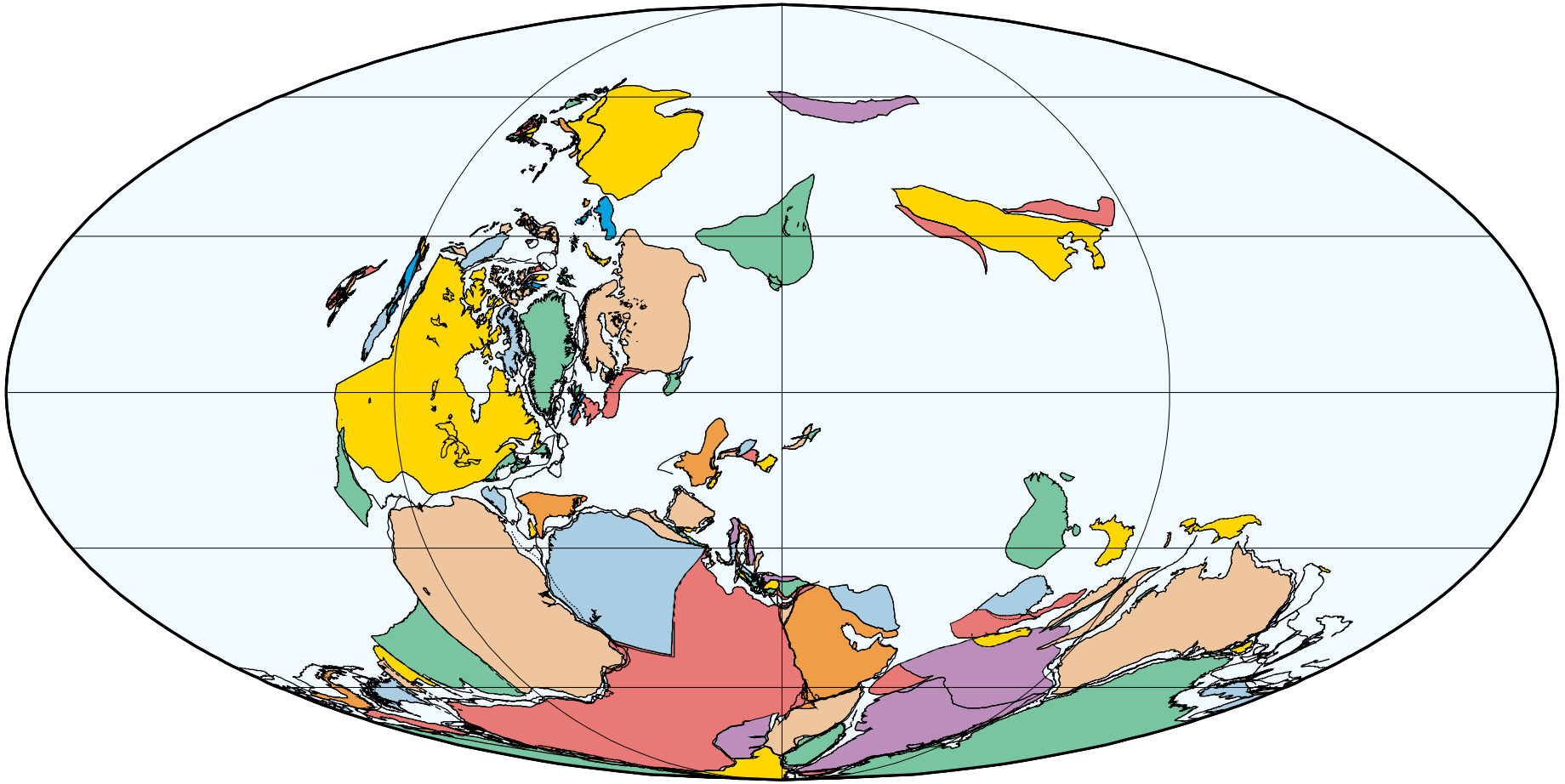

350 Ma

Tournaisian (Mississippian)

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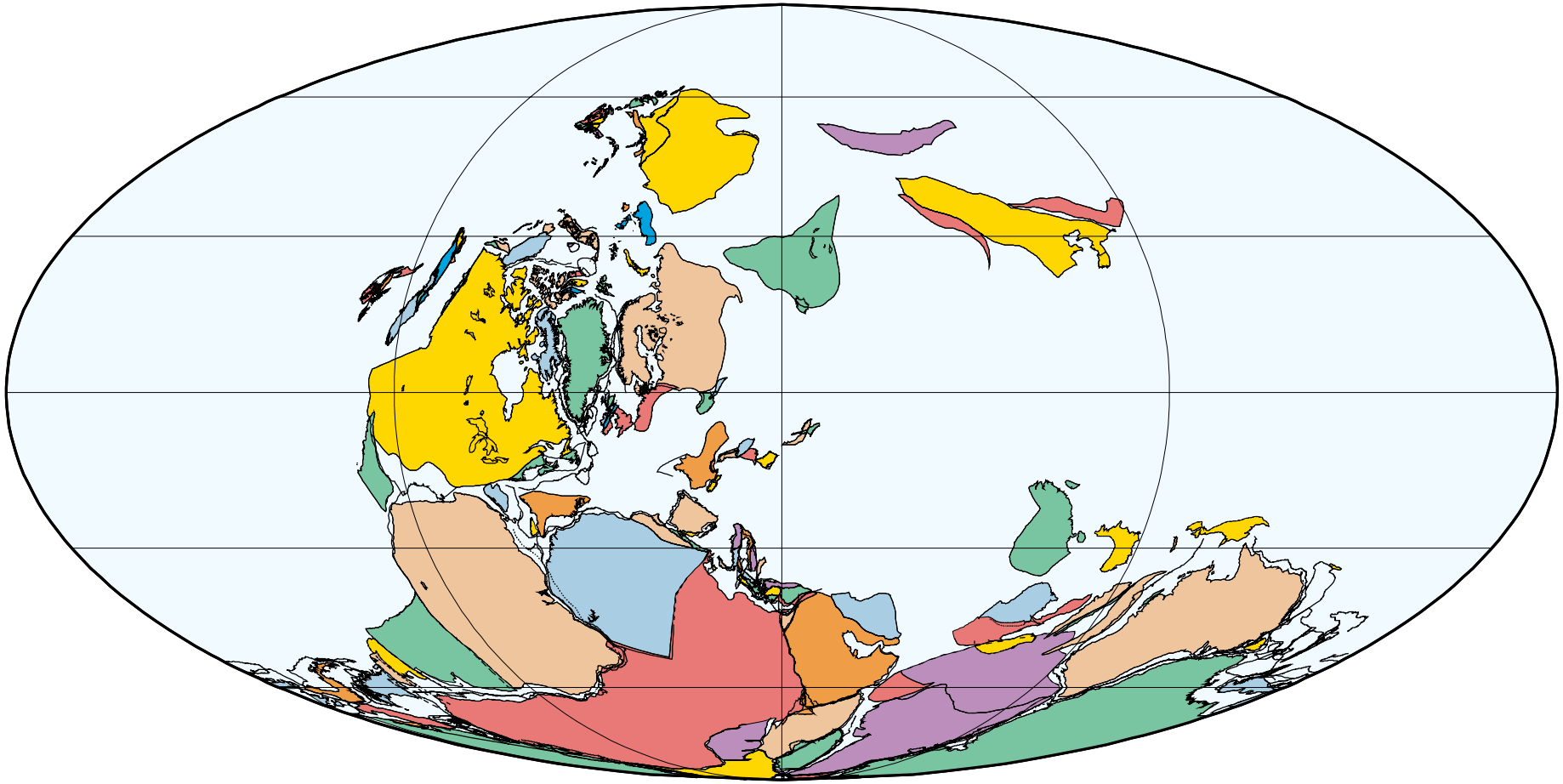

340 Ma

Early Visean (Mississippian)

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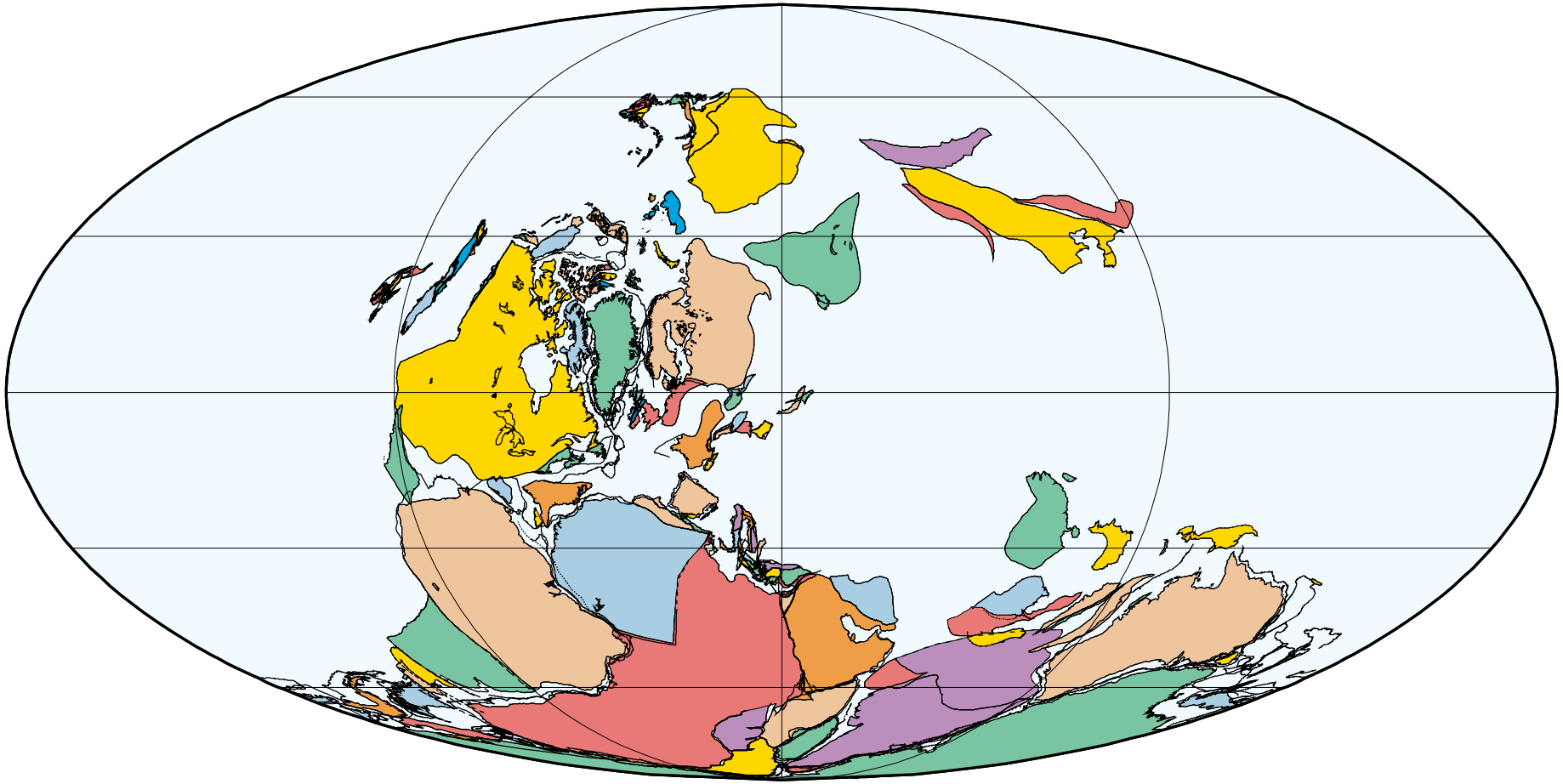

330 Ma

Visean (Mississippian)

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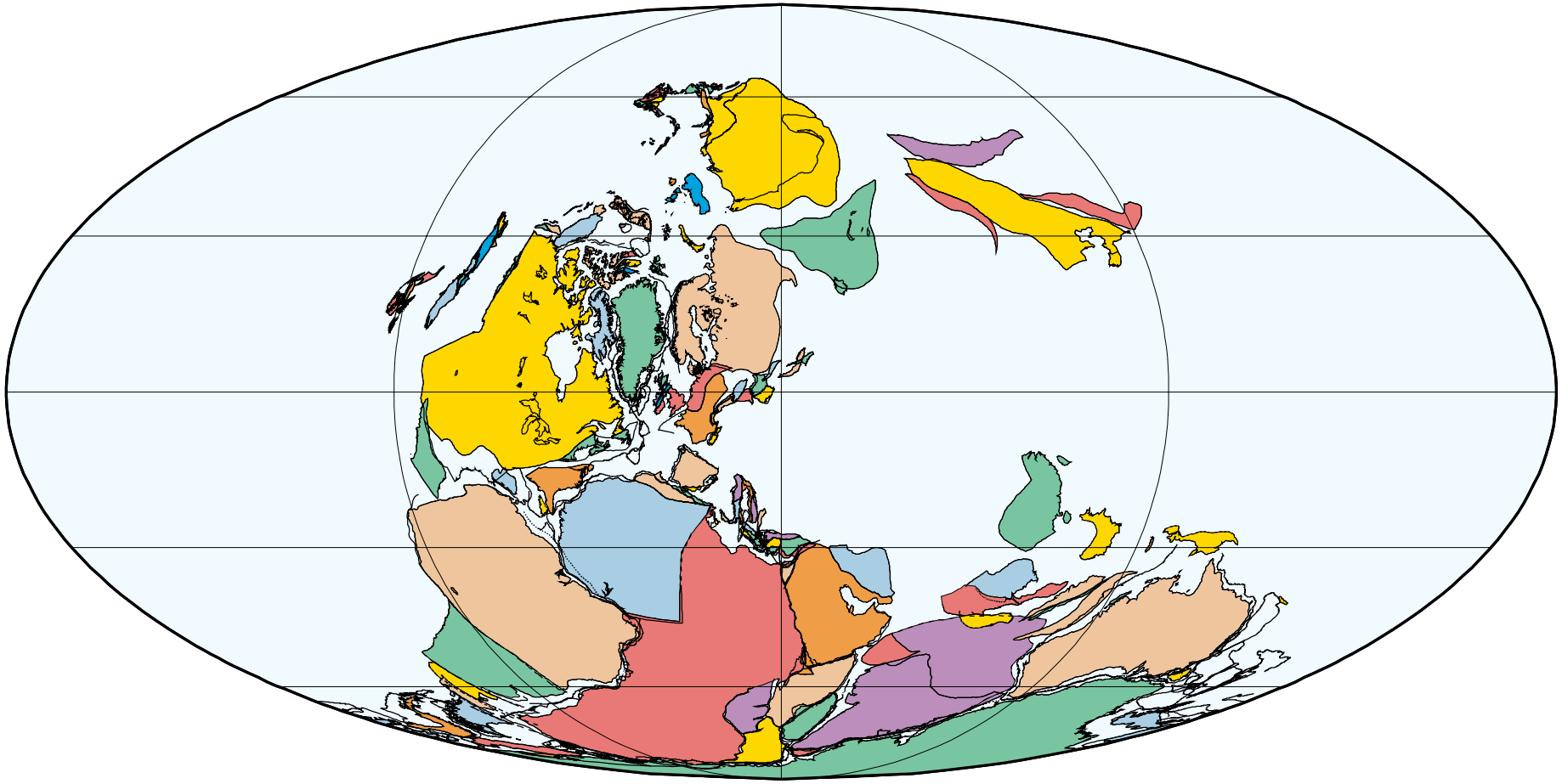

320 Ma

Bashkirian (Pennsylvanian)

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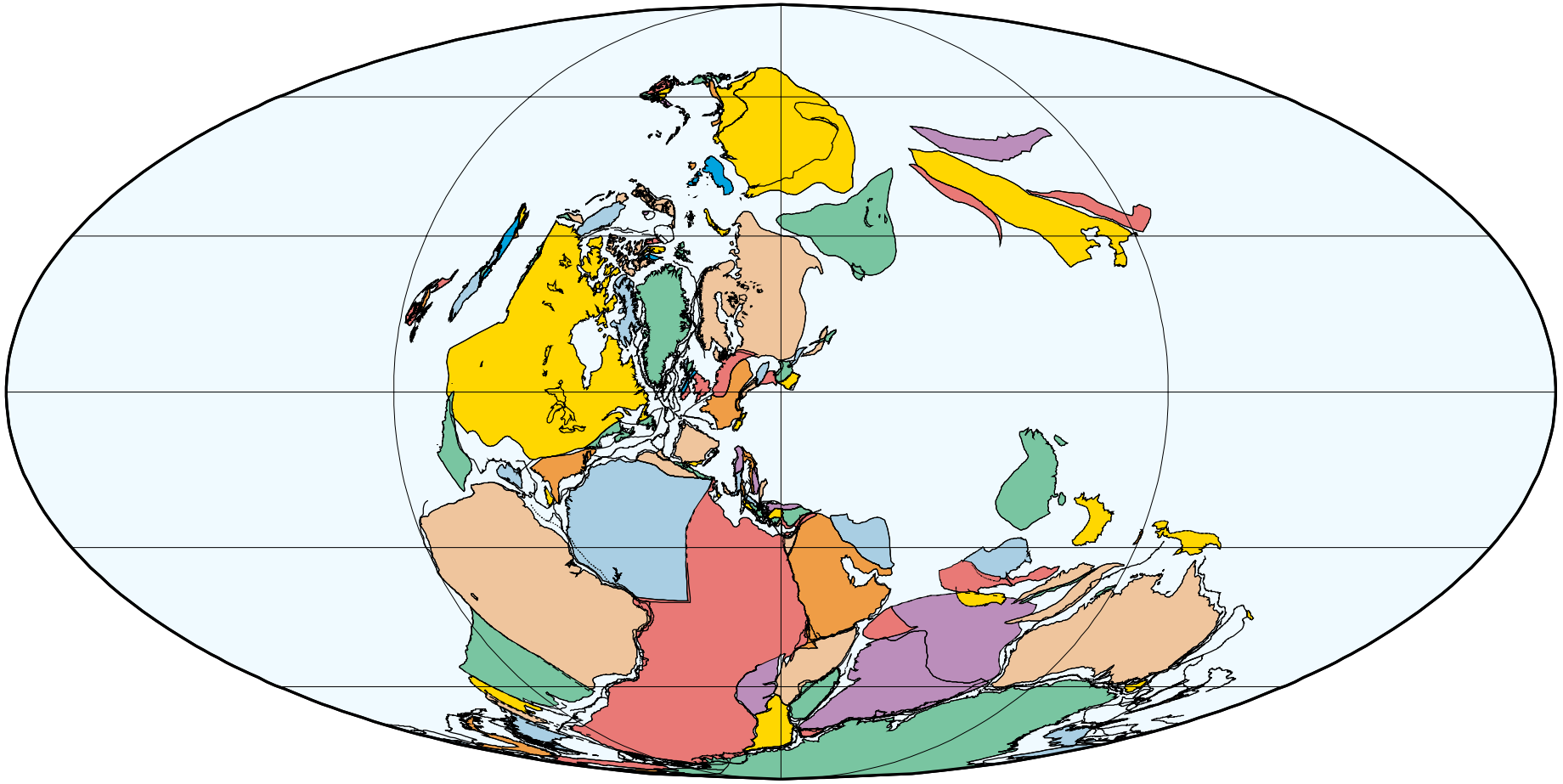

310 Ma

Moscovian (Pennsylvanian)

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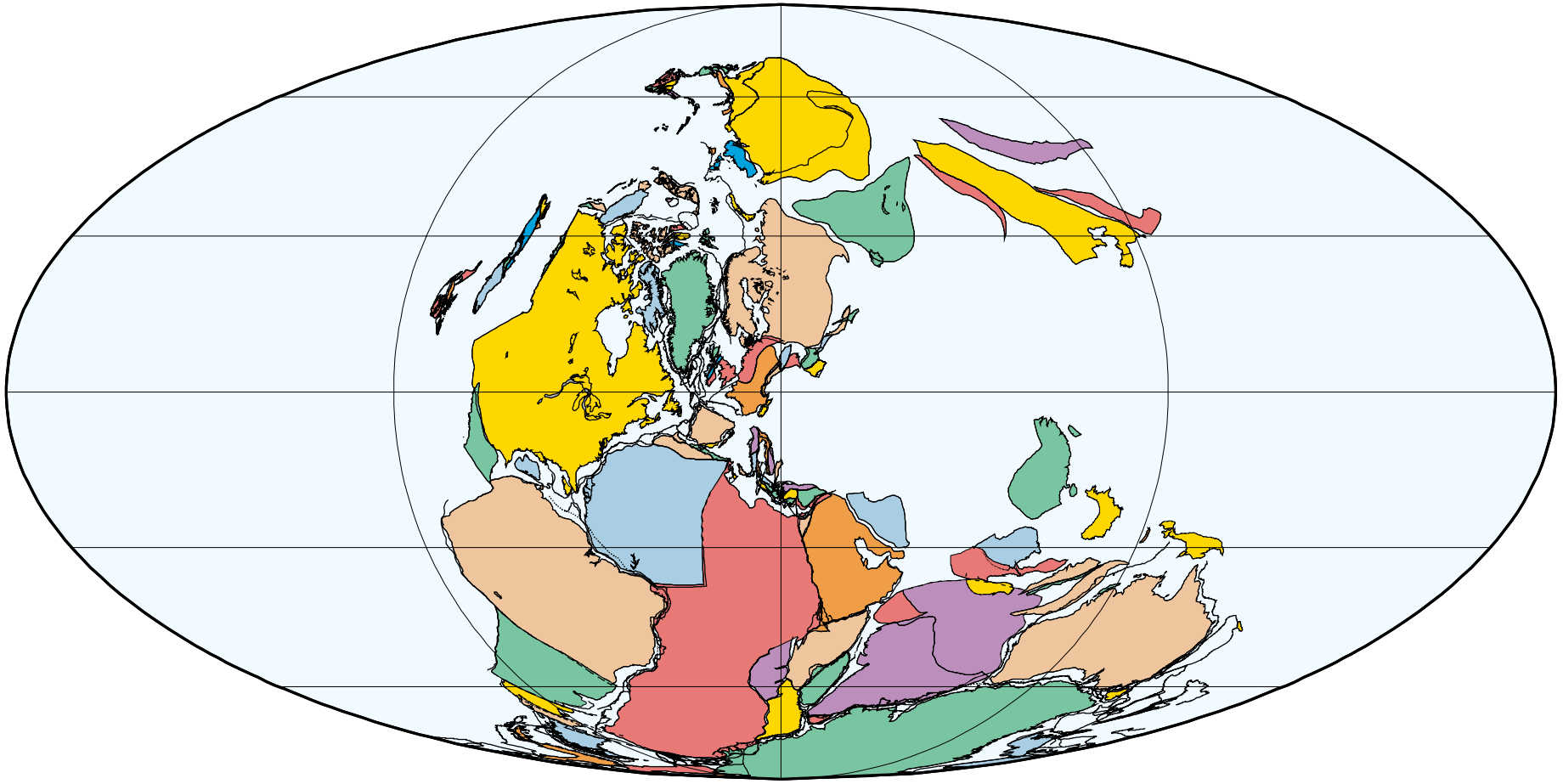

300 Ma

Kasimovian (Pennsylvanian)

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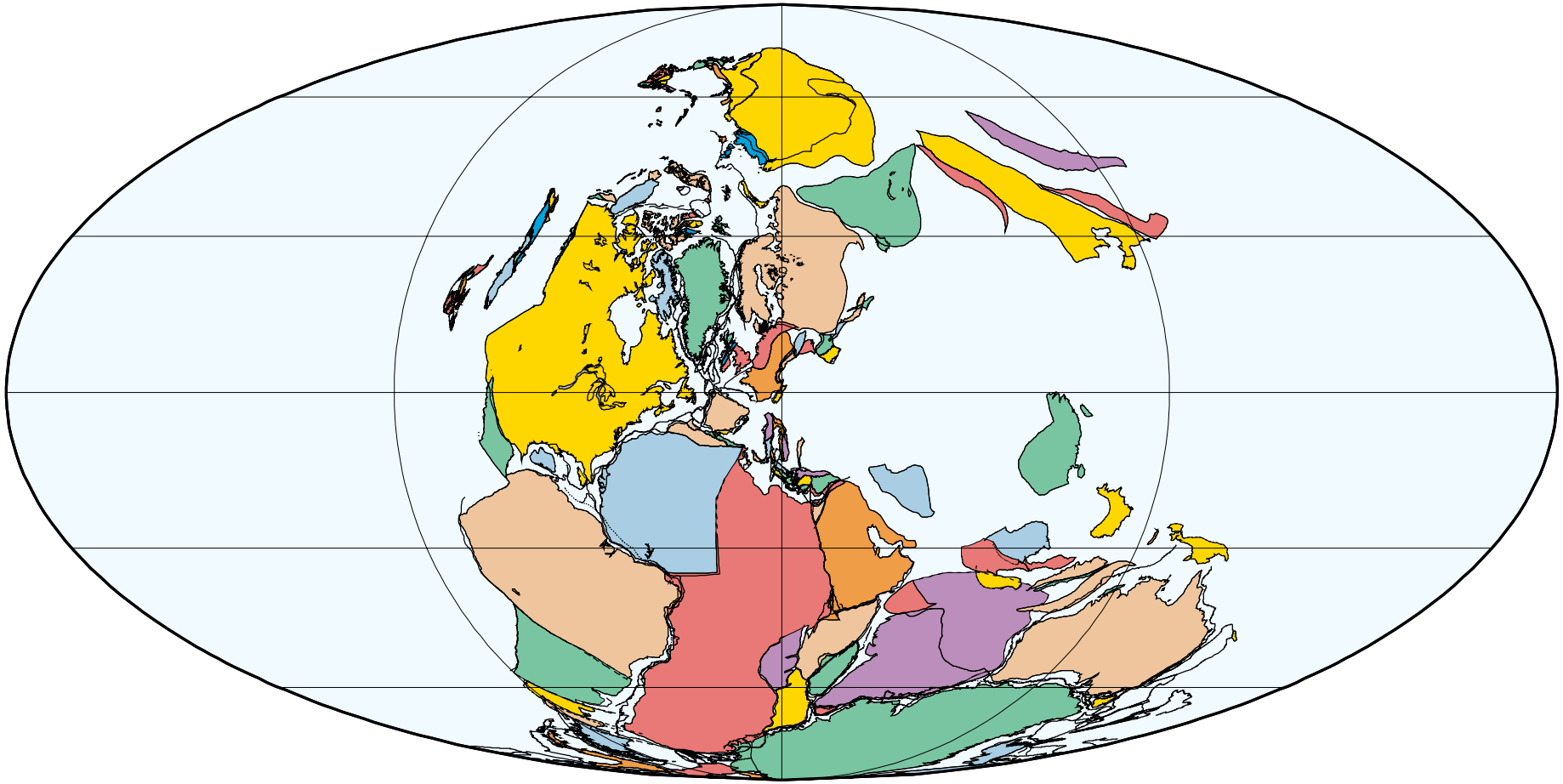

290 Ma

Late Gzelian/Early Asselian (Pennsylvanian/Permian)

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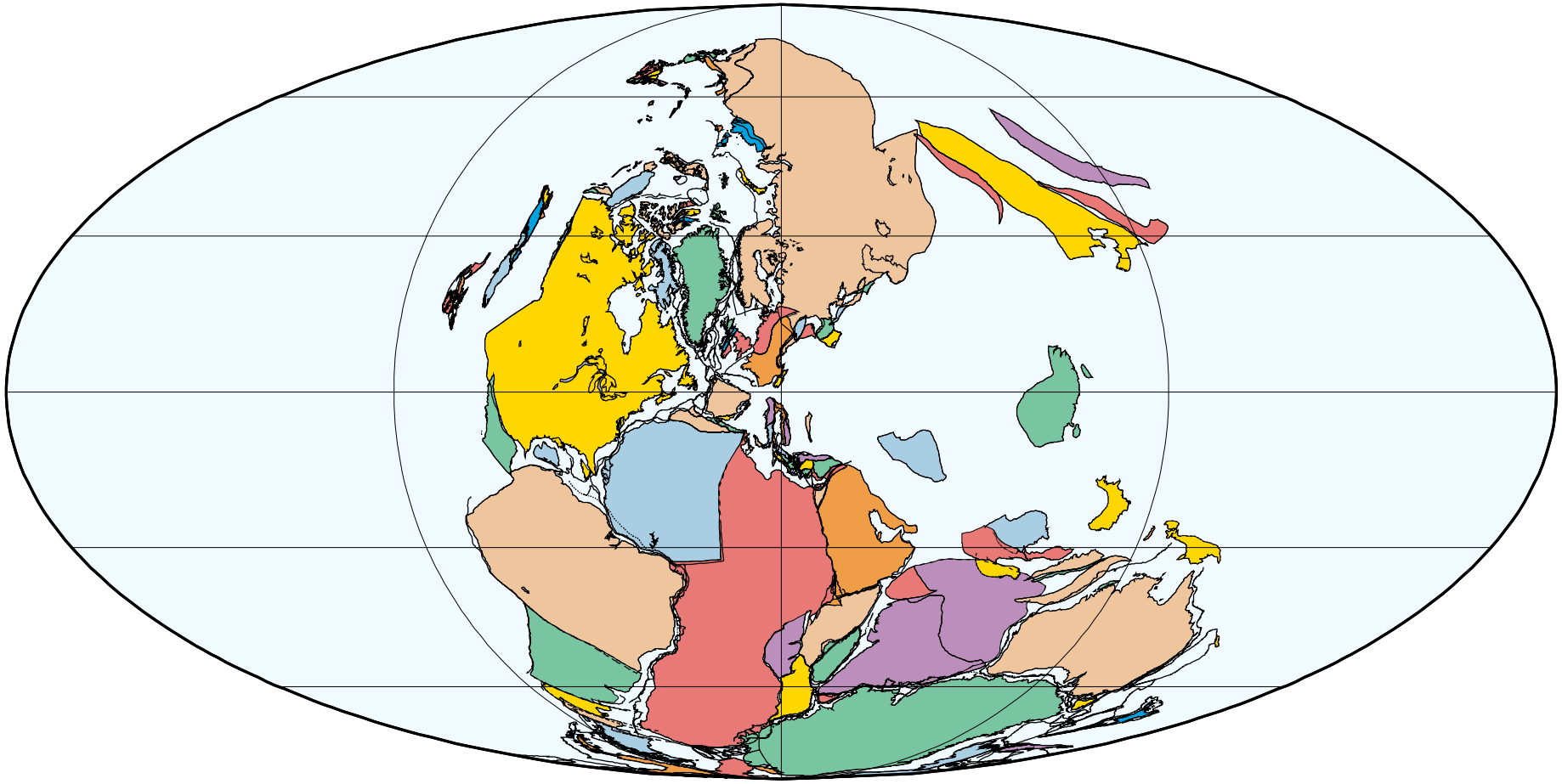

280 Ma

Early Sakmarian (Early Permian)

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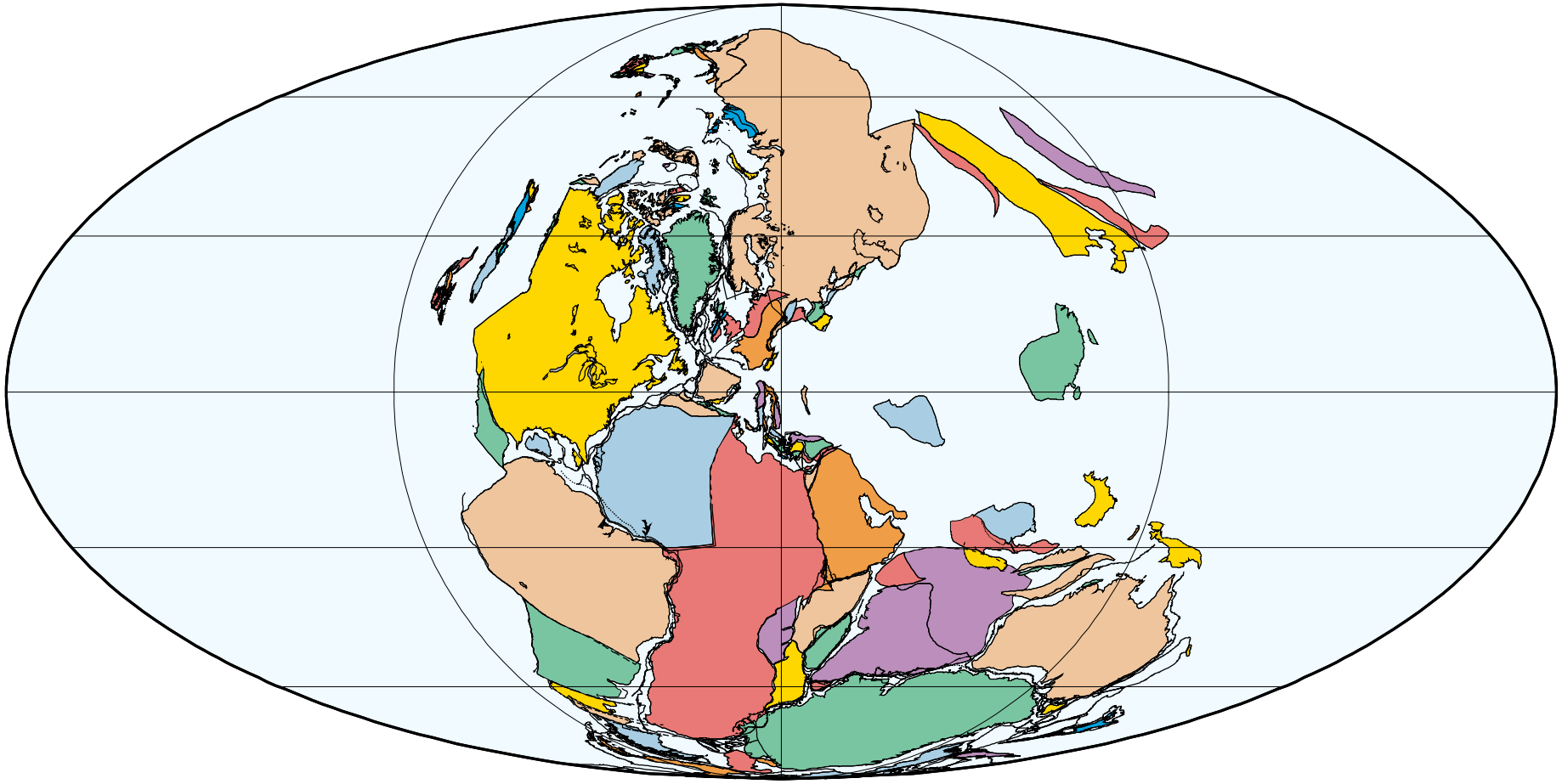

270 Ma

Late Sakmarian (Early Permian)

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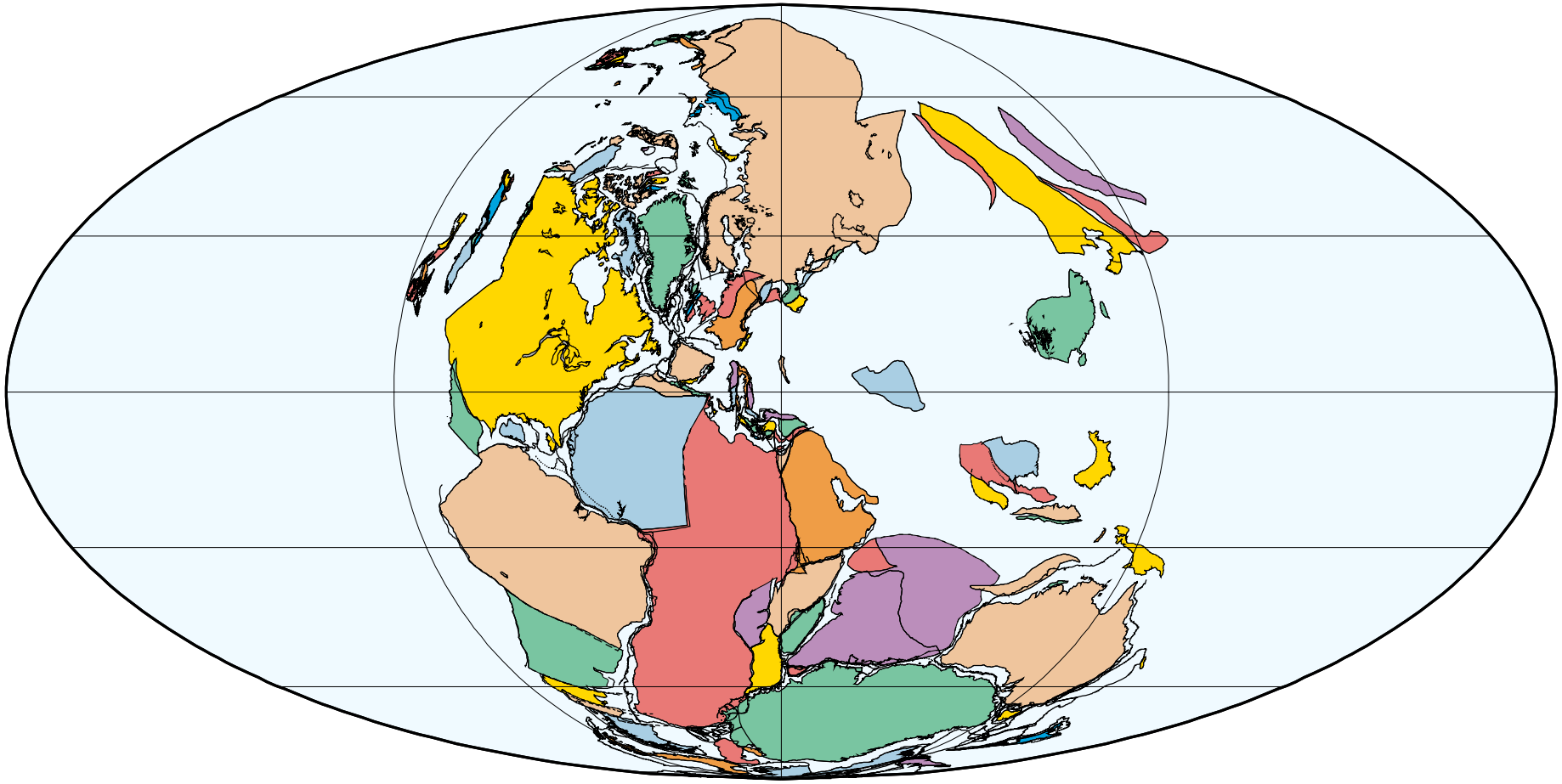

260 Ma

Late Artinskian/Early Kungurian (Early Permian)

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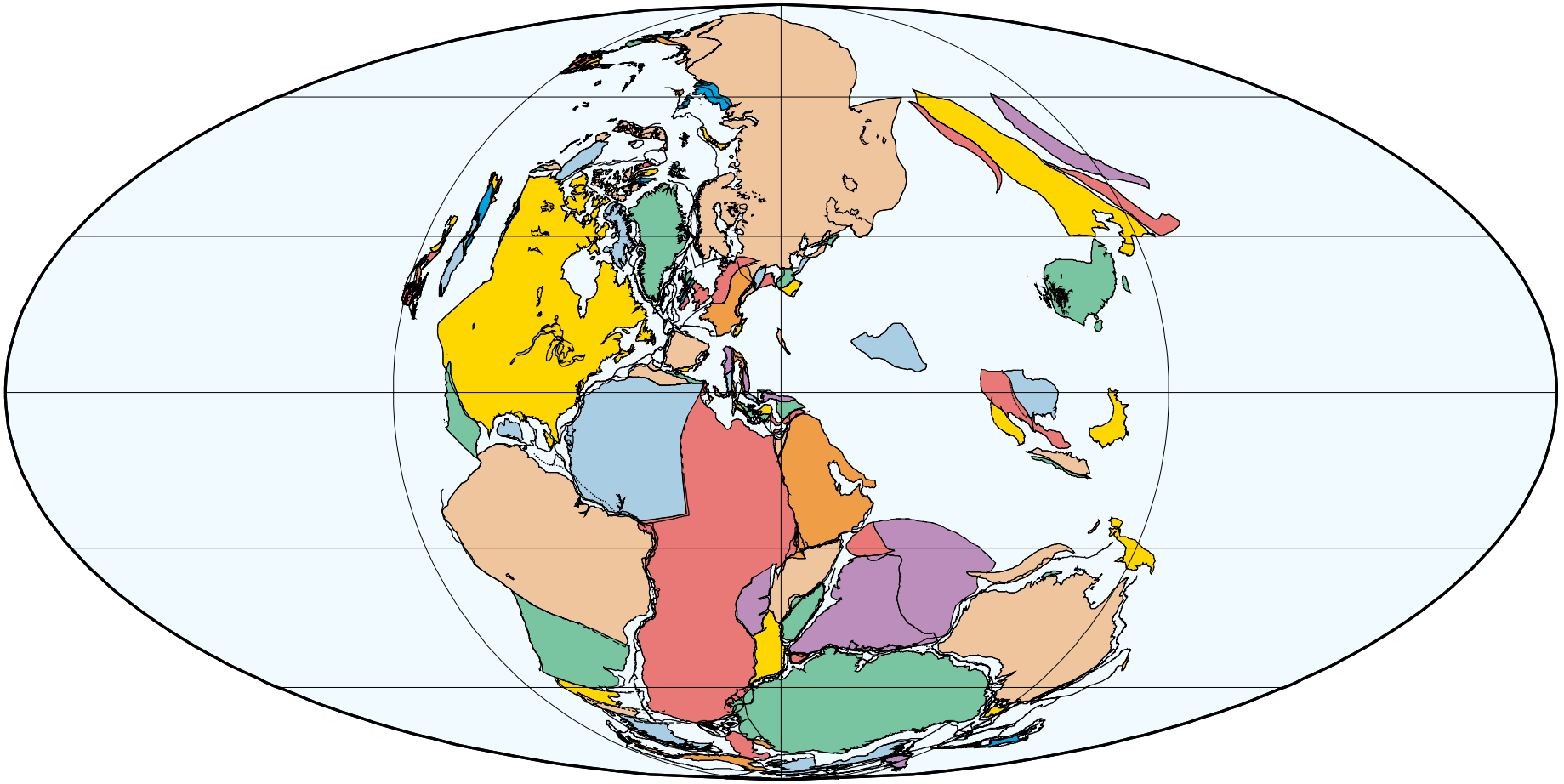

250 Ma

Tatarian (Late Permian)

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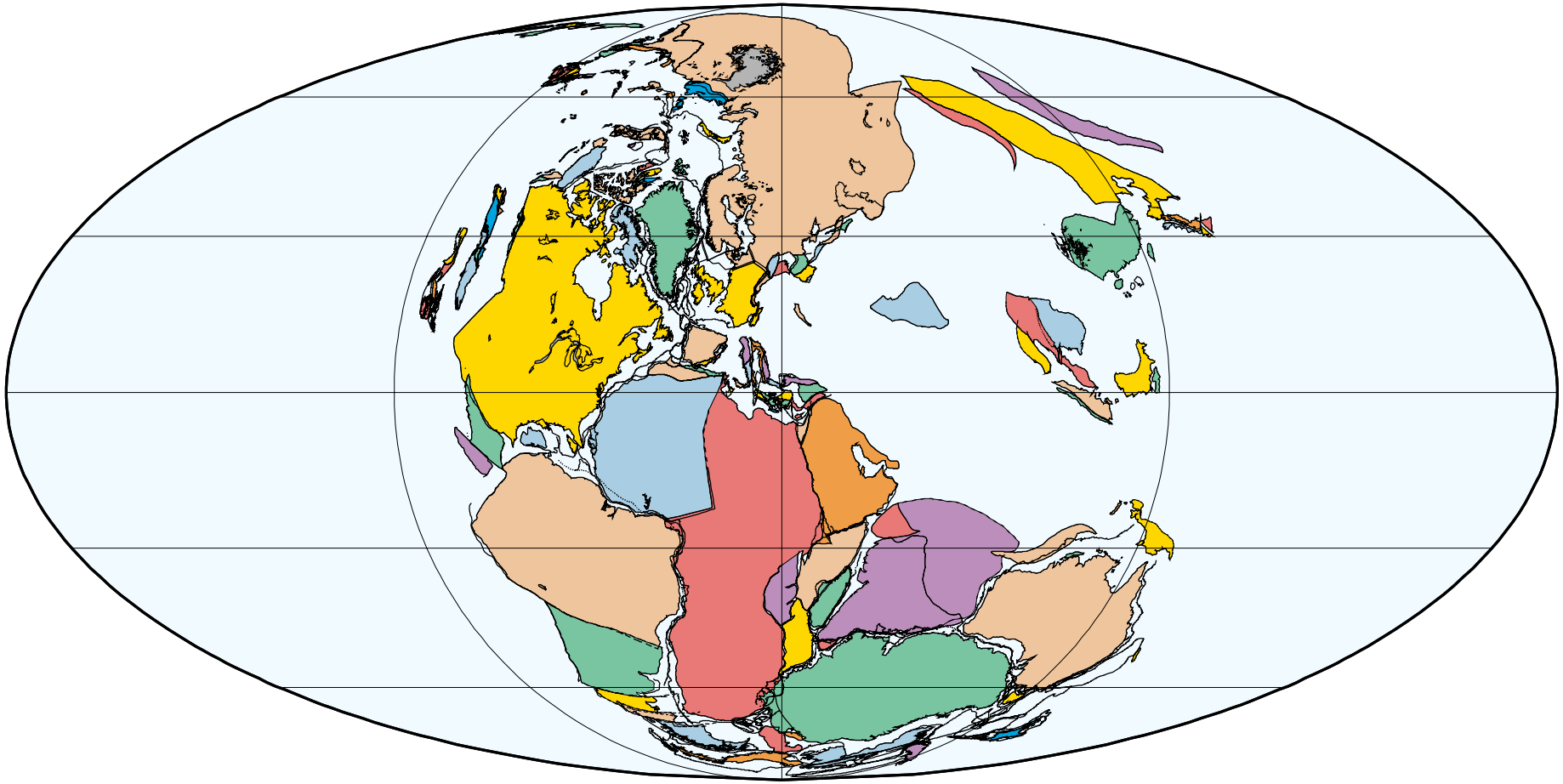

240 Ma

Anisian (Middle Triassic)

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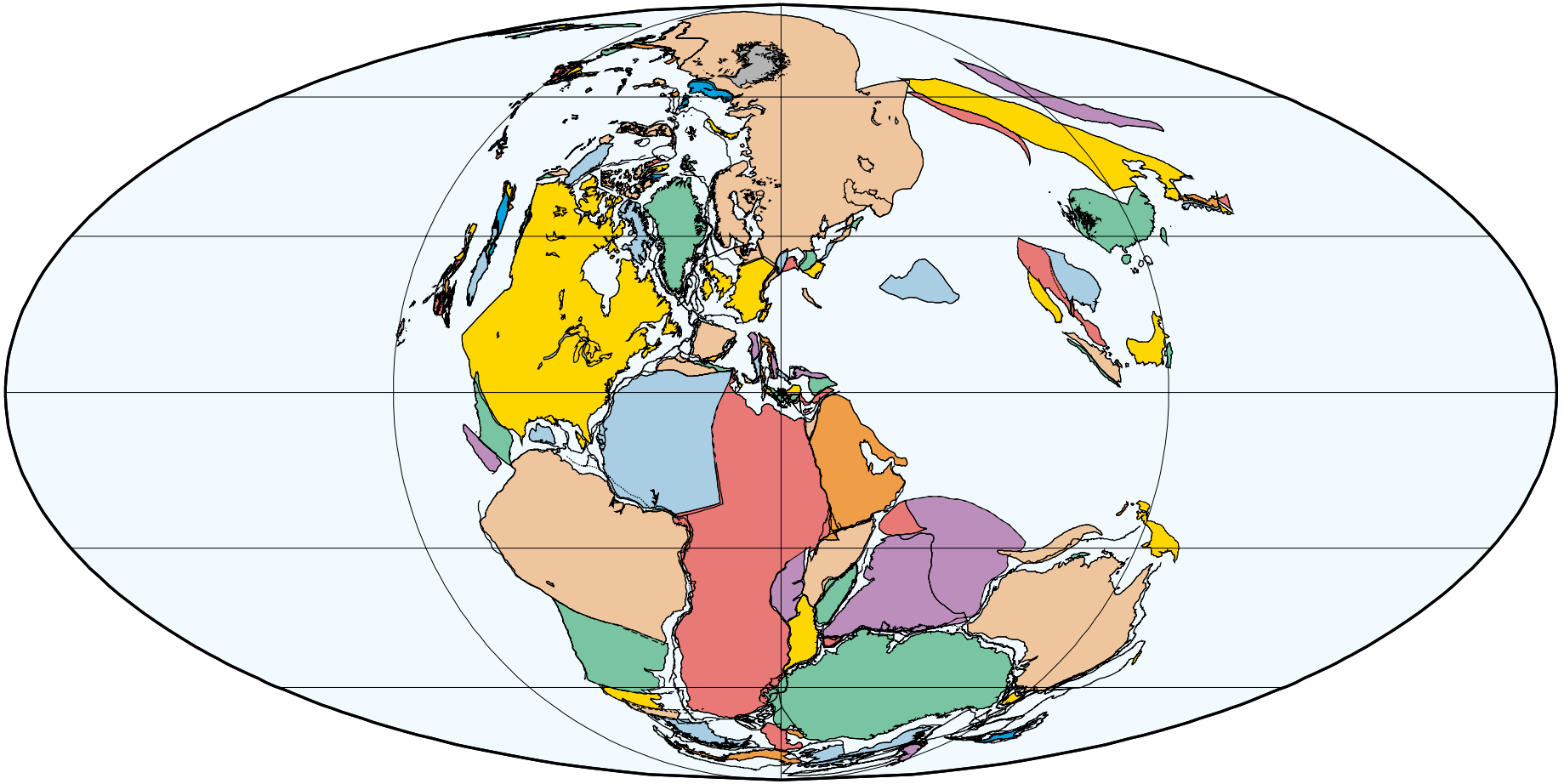

230 Ma

Ladinian (Middle Triassic)

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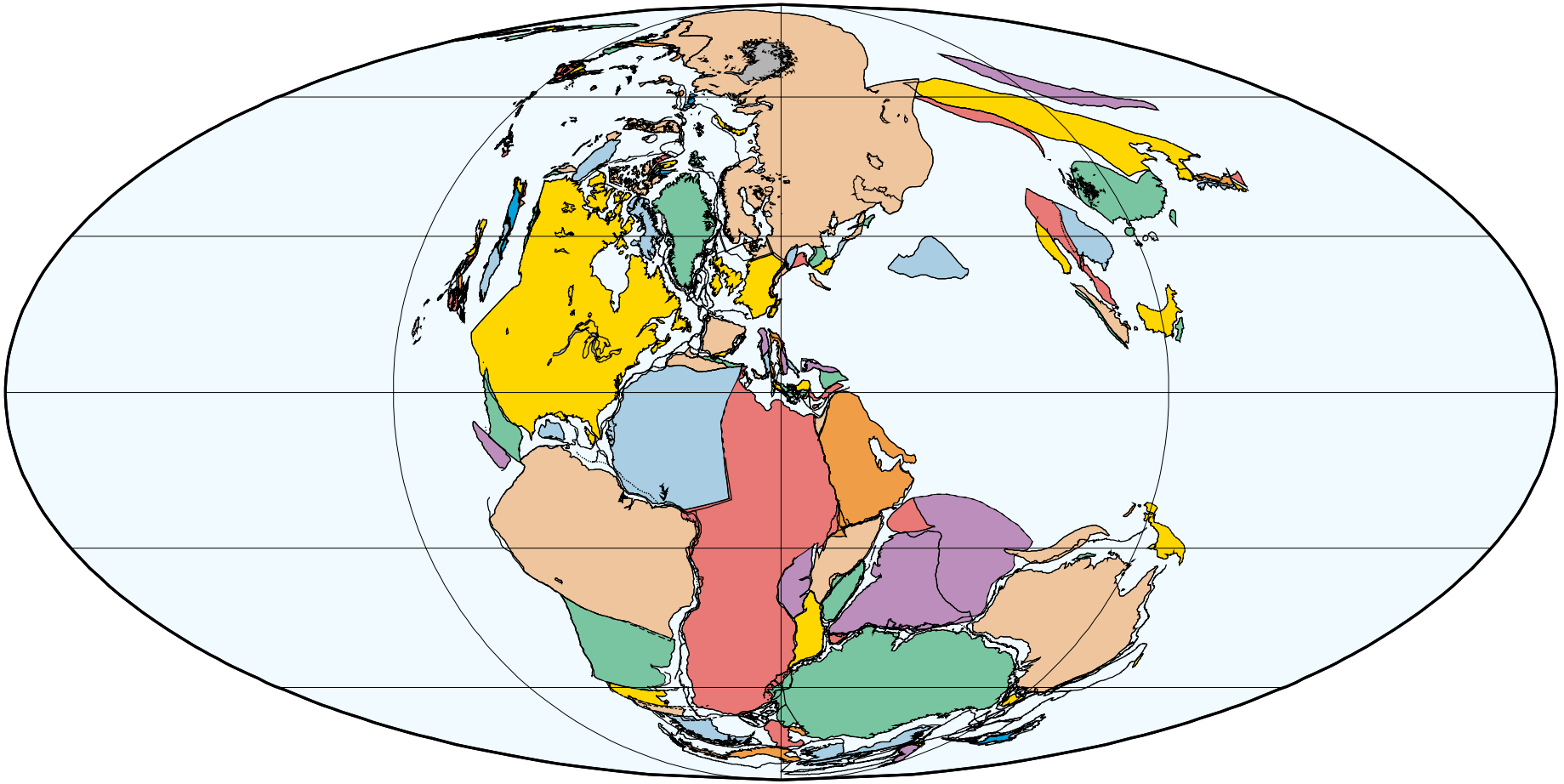

220 Ma

Early Norian (Late Triassic)

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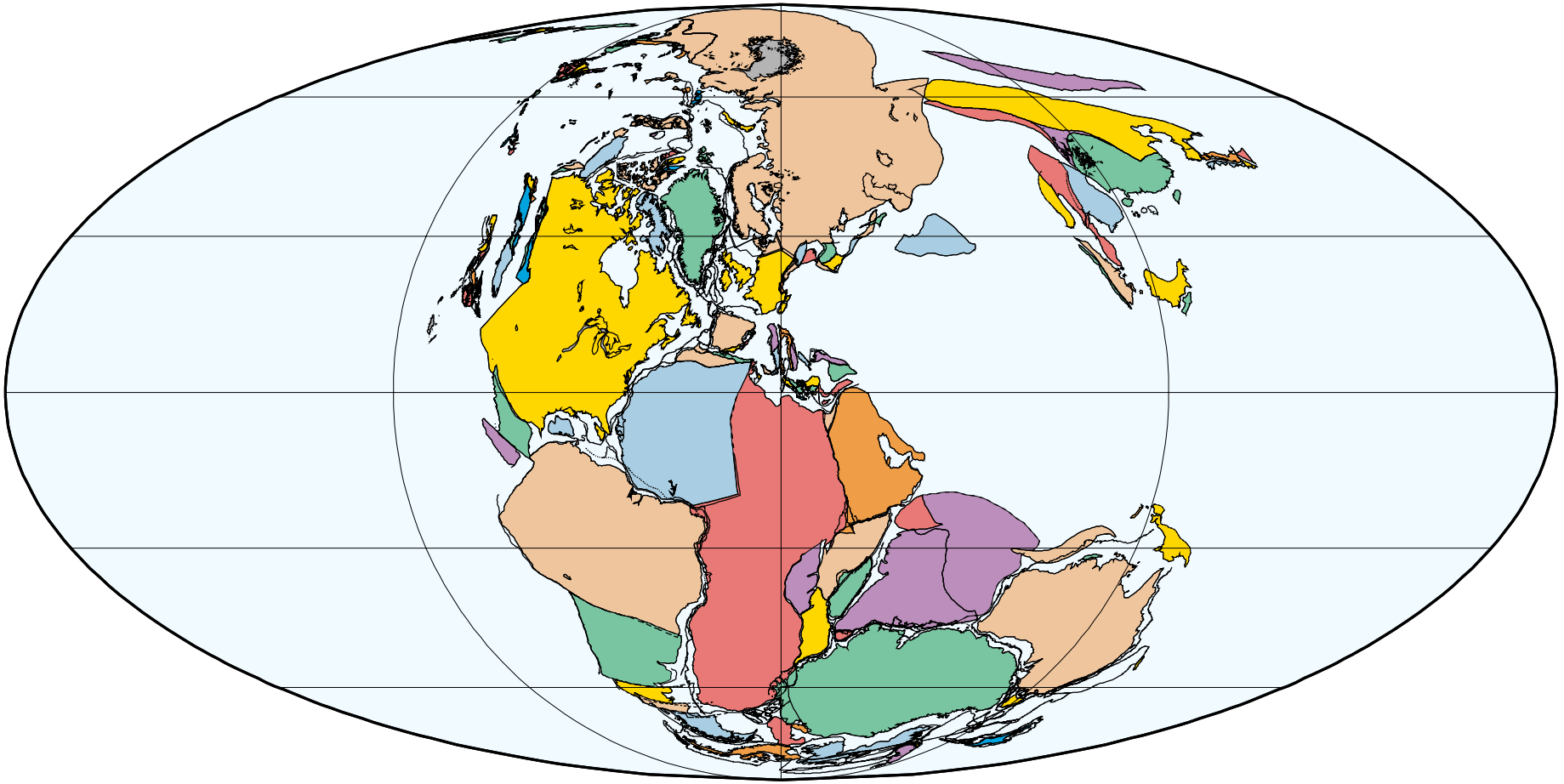

210 Ma

Late Norian (Late Triassic)

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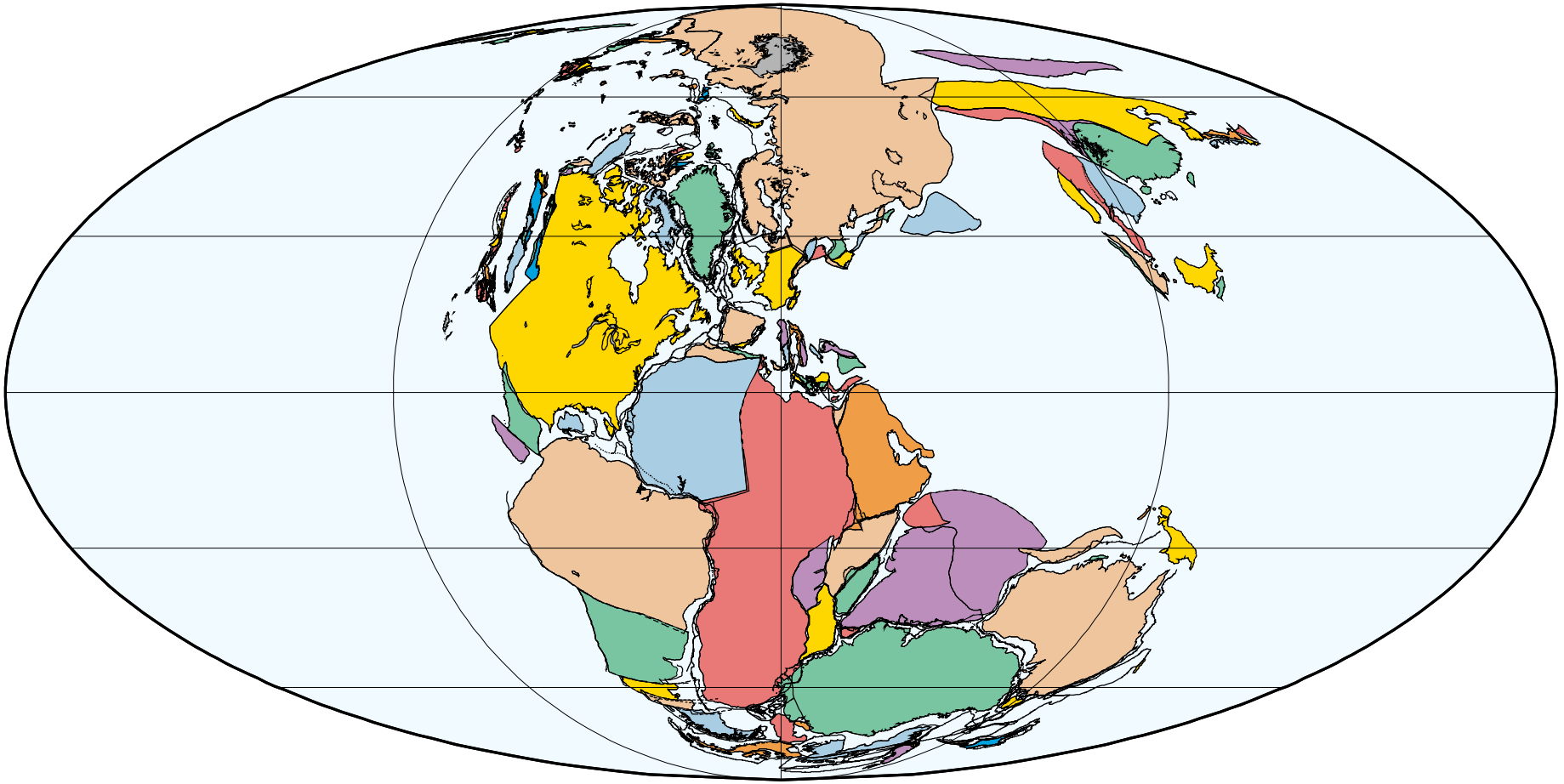

200 Ma

Sinemurian (Early Jurassic)

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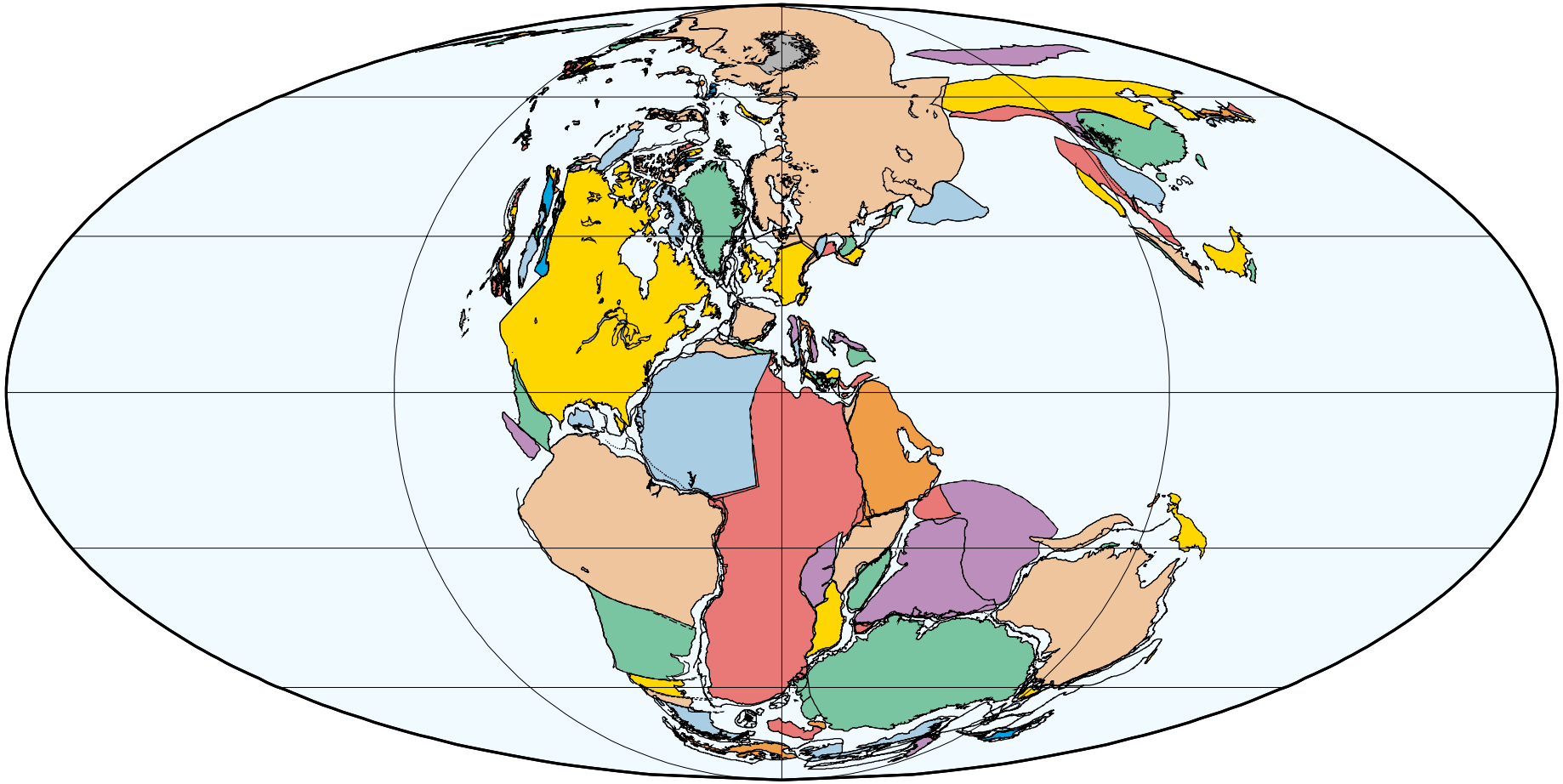

190 Ma

Pliensbachian (Early Jurassic)

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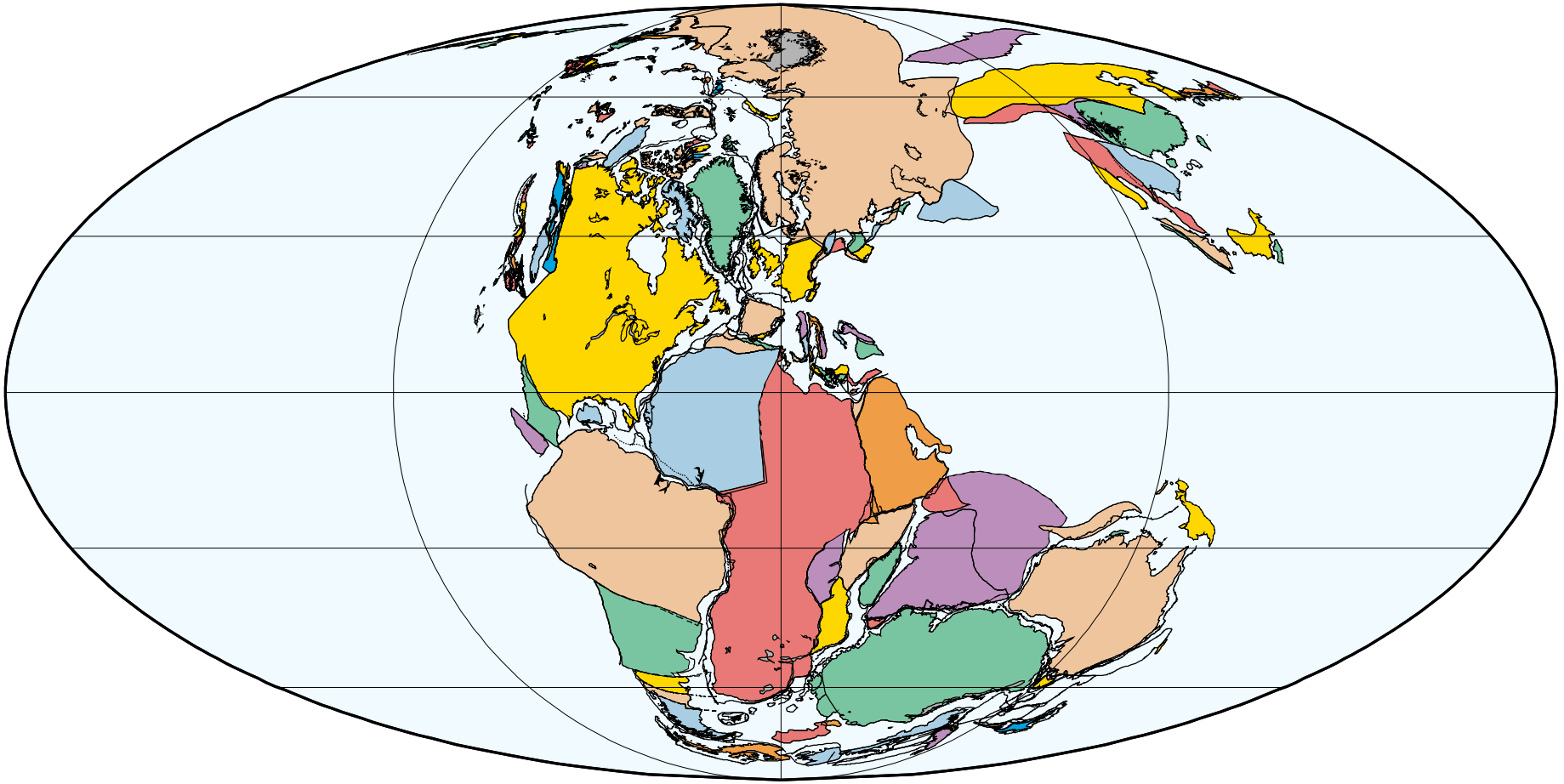

180 Ma

Aalenian (Middle Jurassic)

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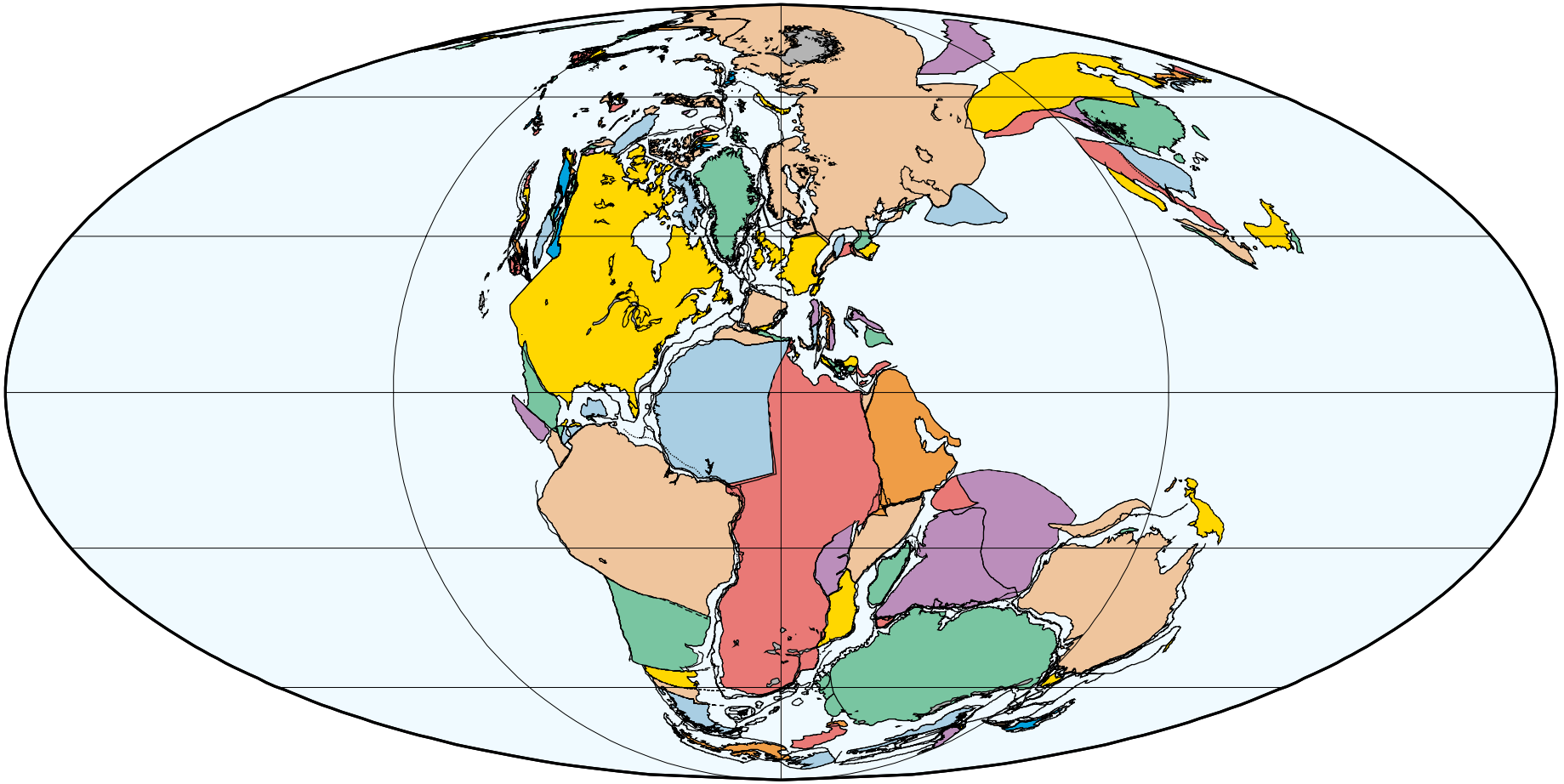

170 Ma

Bajocian (Middle Jurassic)

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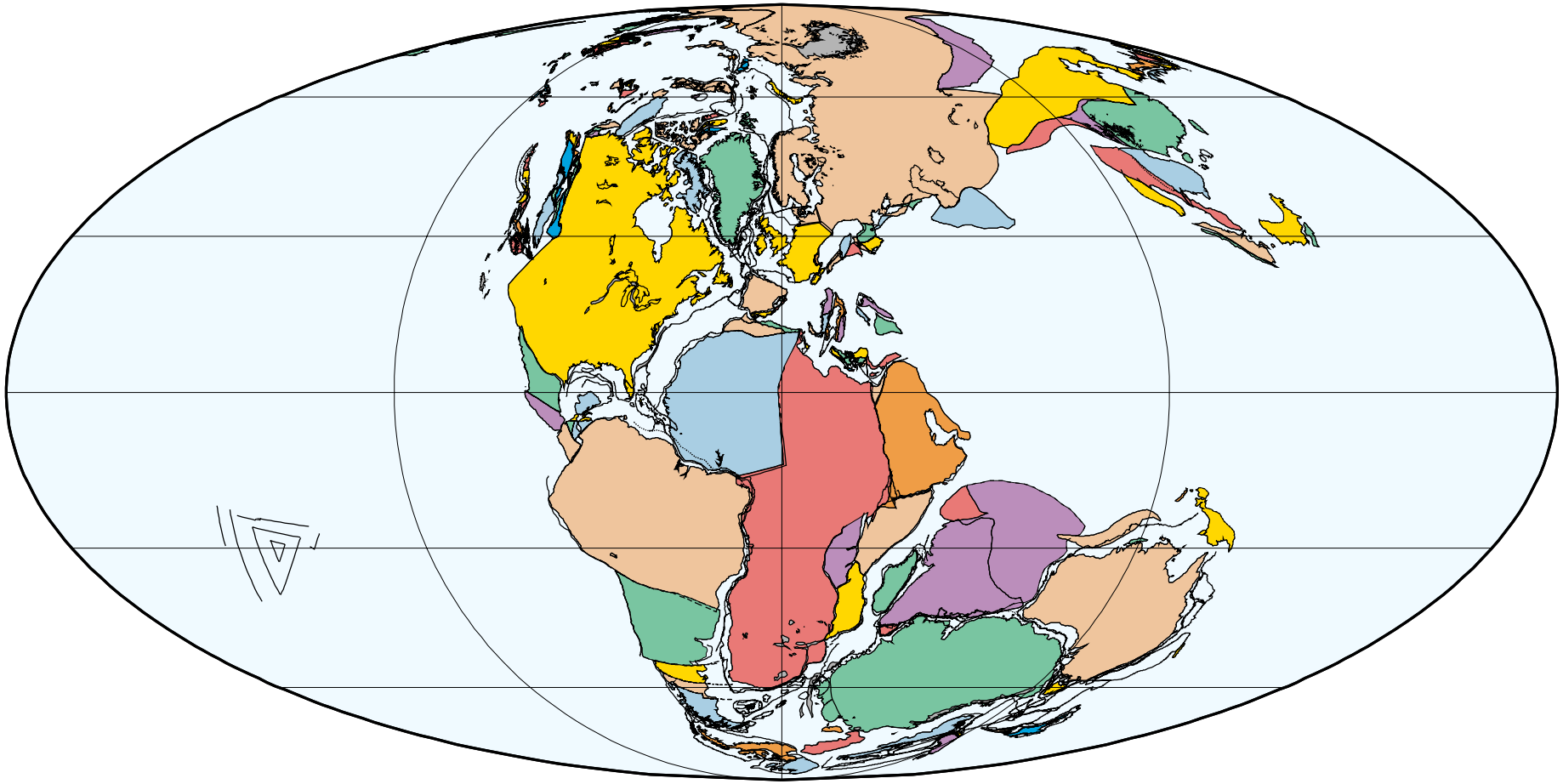

160 Ma

Callovian (Middle Jurassic)

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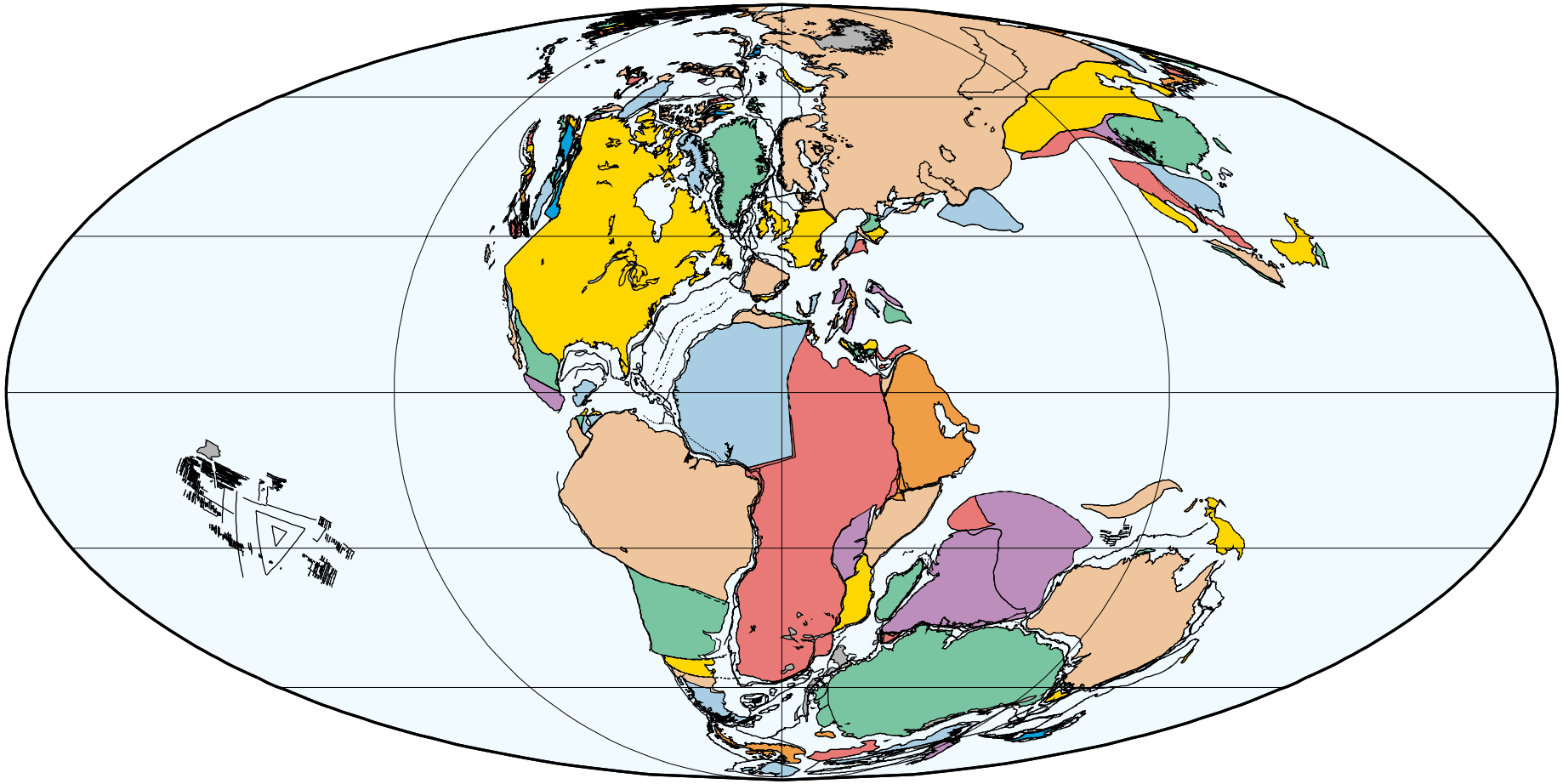

150 Ma

Volgian (Late Jurassic)

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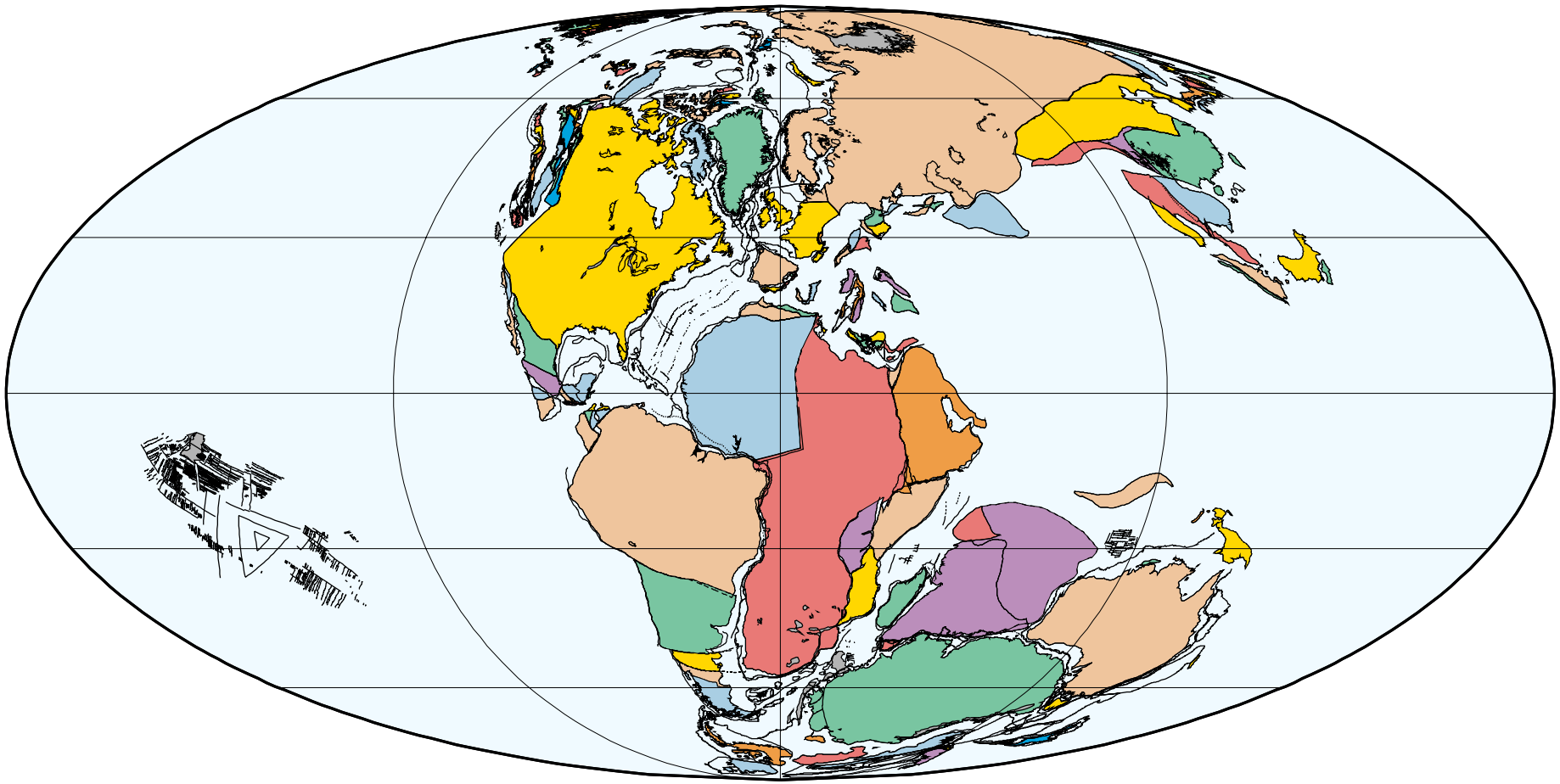

140 Ma

Ryazanian (Early Cretaceous)

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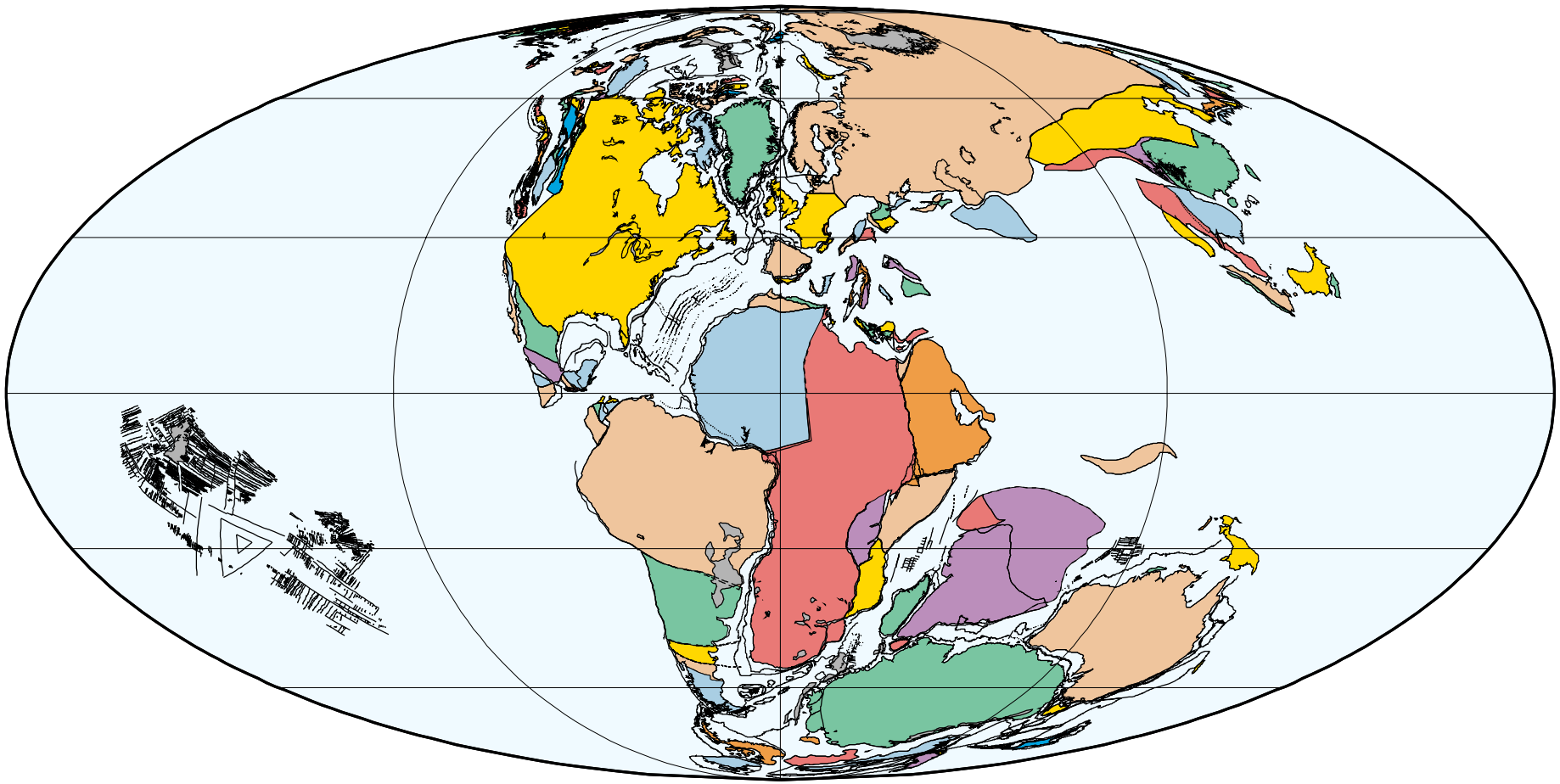

130 Ma

Hauterivian (Early Cretaceous)

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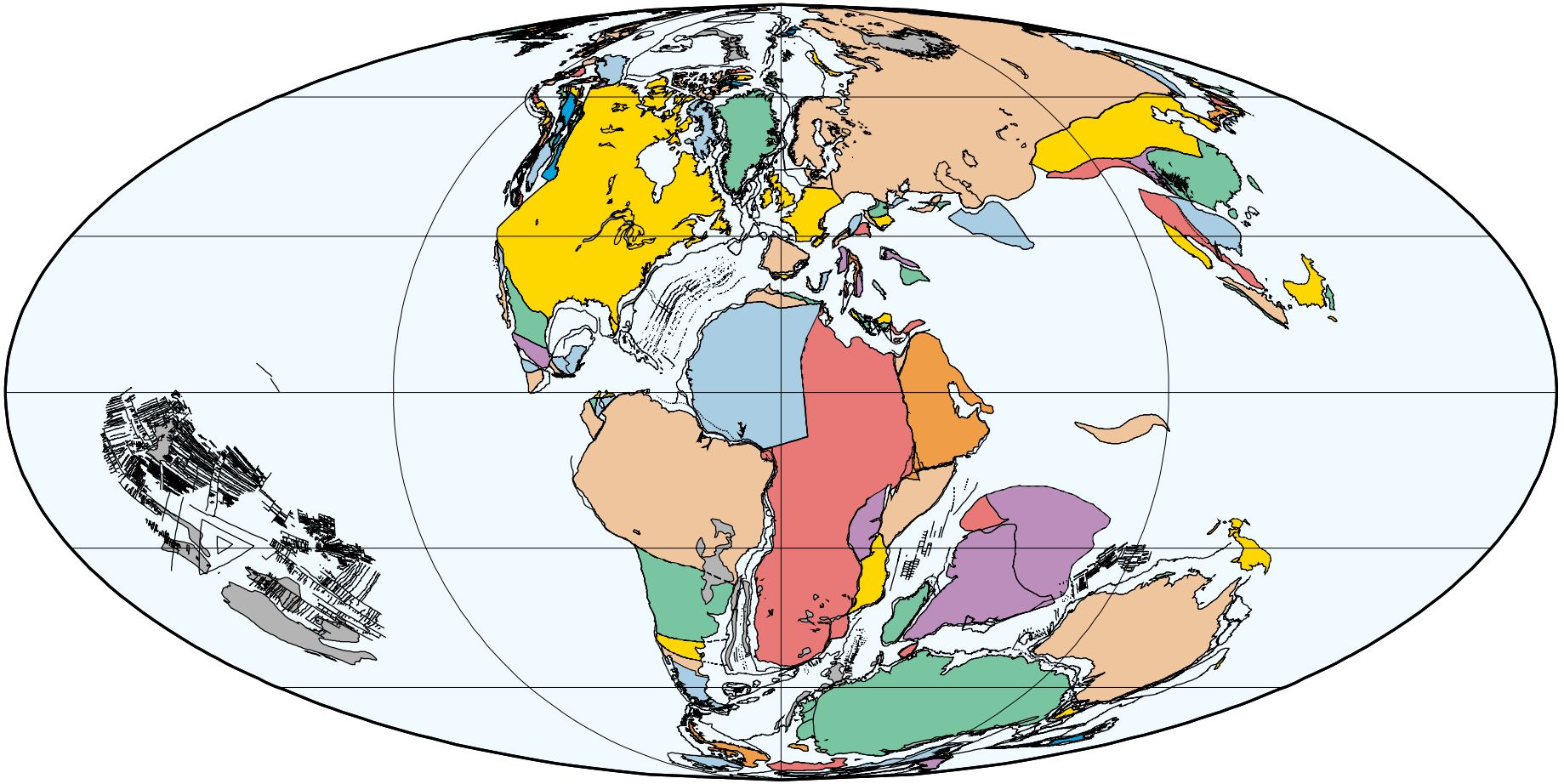

120 Ma

Aptian (Early Cretaceous)

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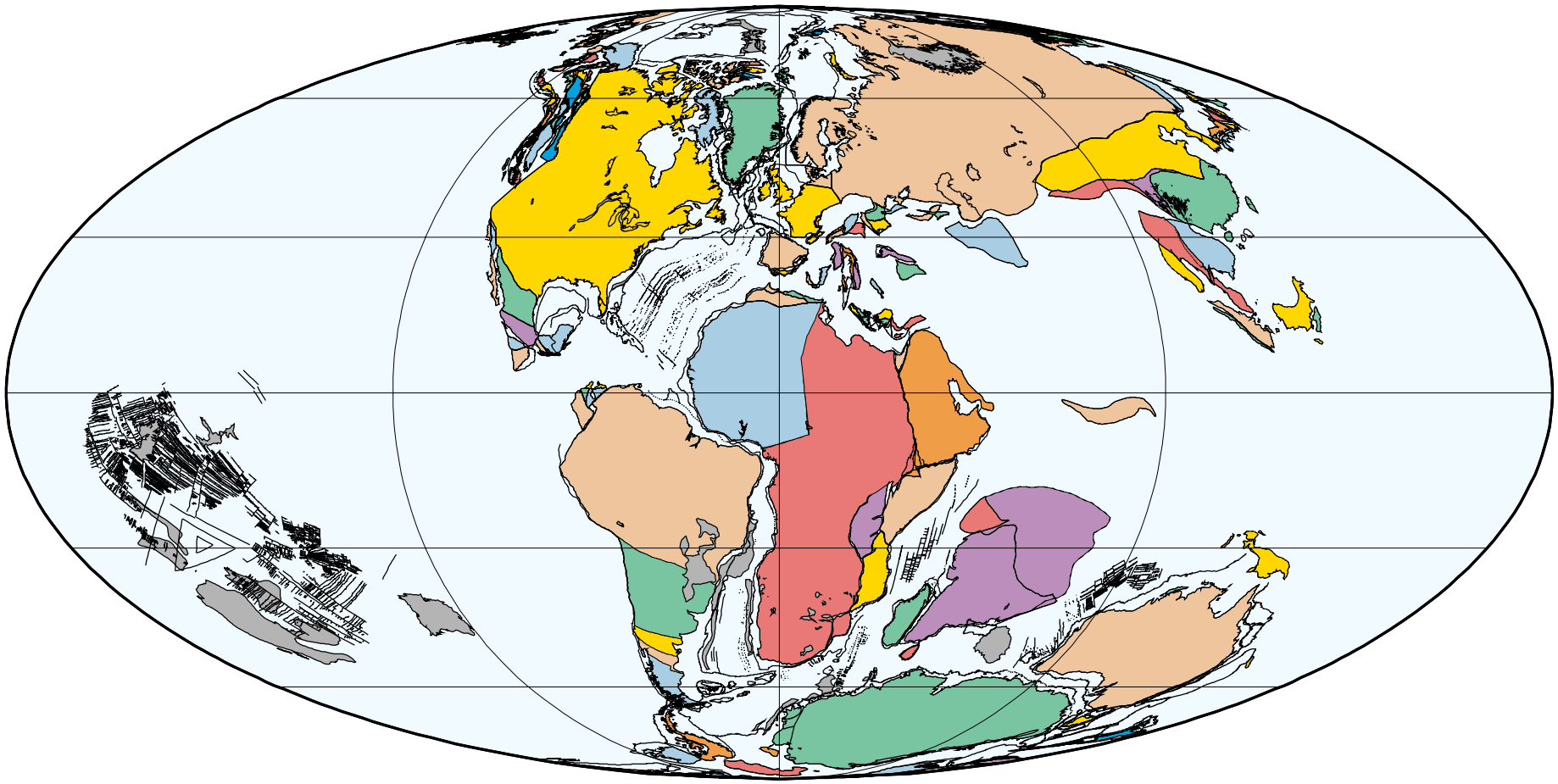

110 Ma

Early Albian (Early Cretaceous)

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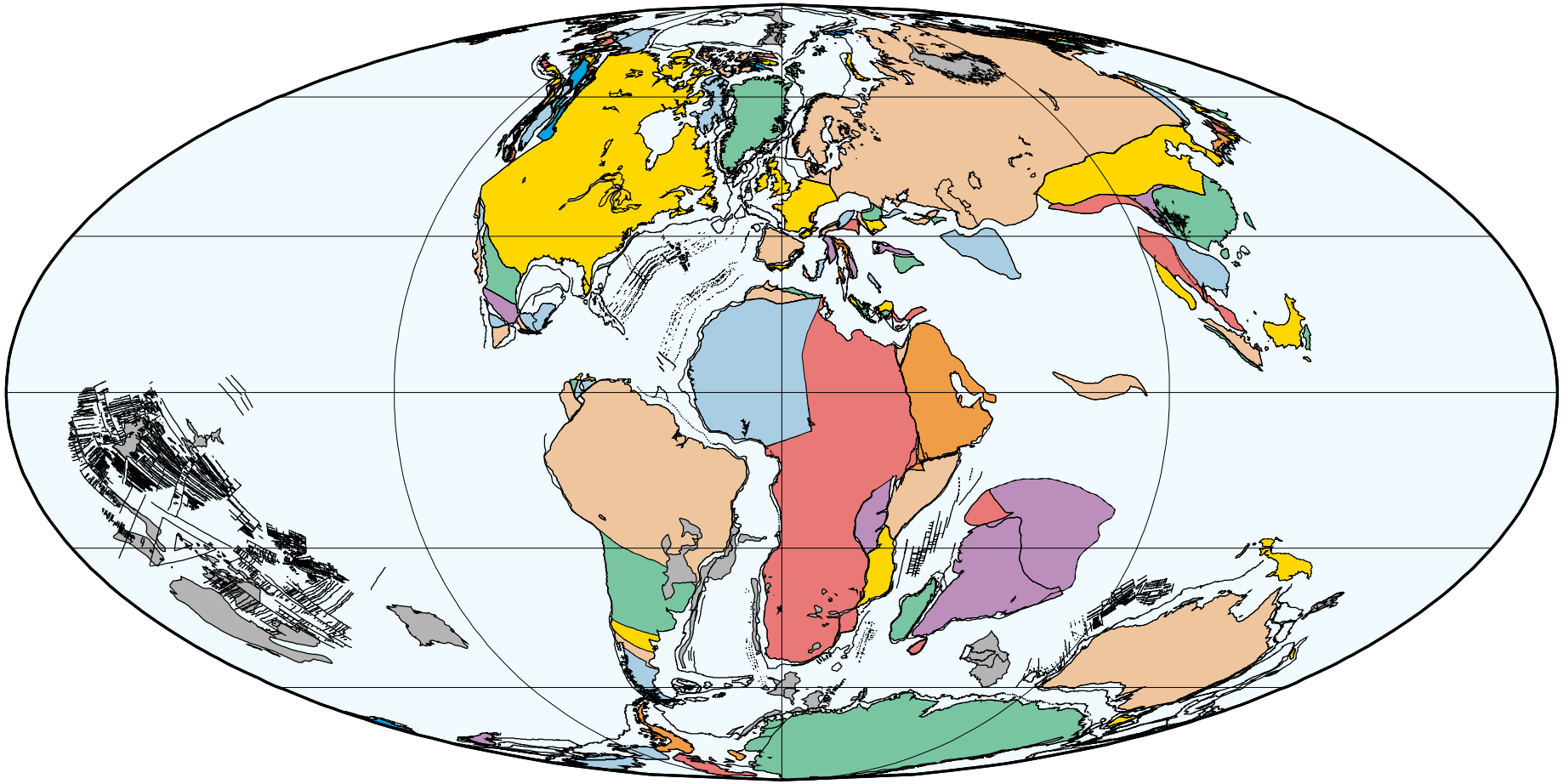

100 Ma

Late Albian (Early Cretaceous)

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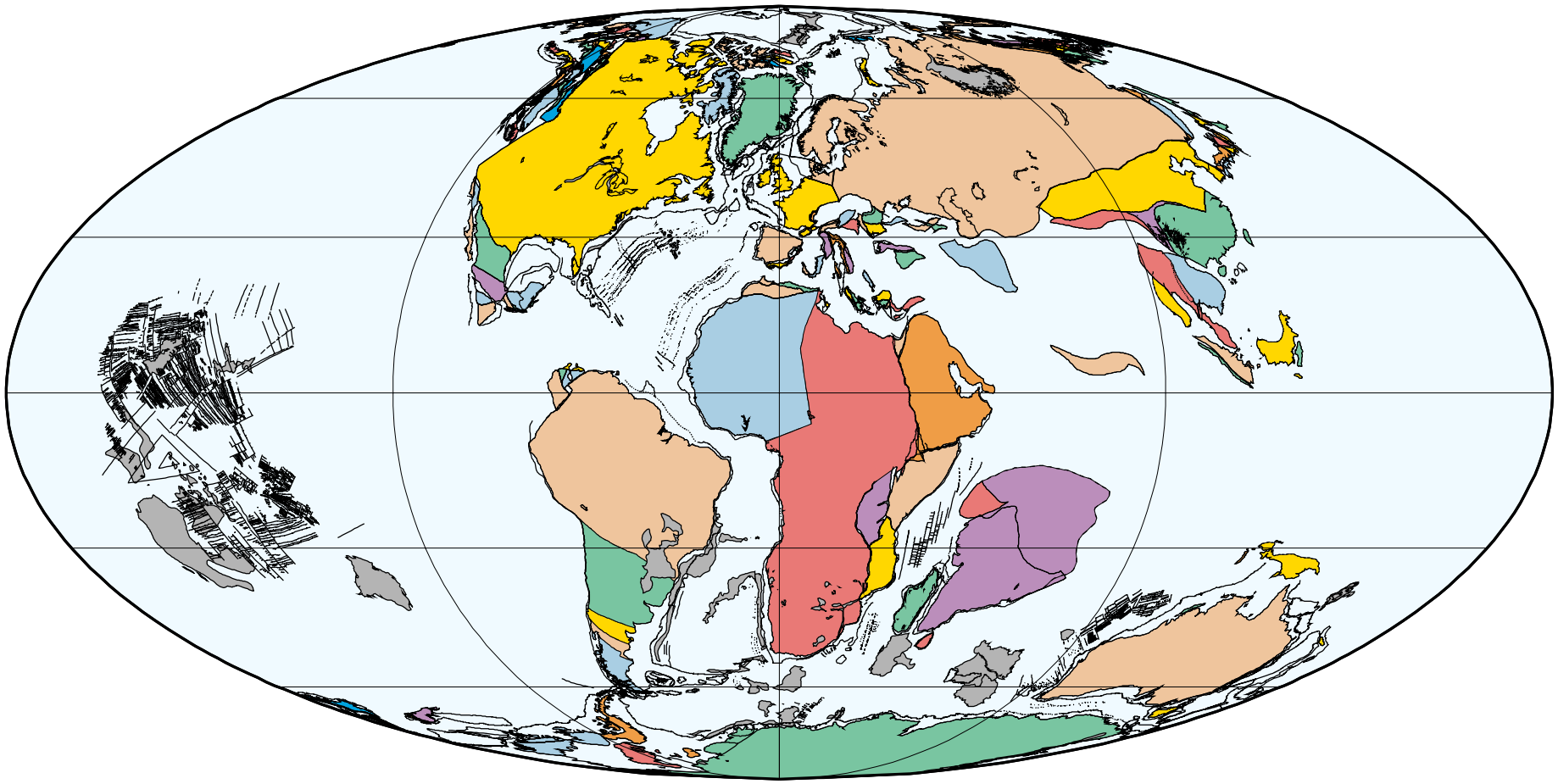
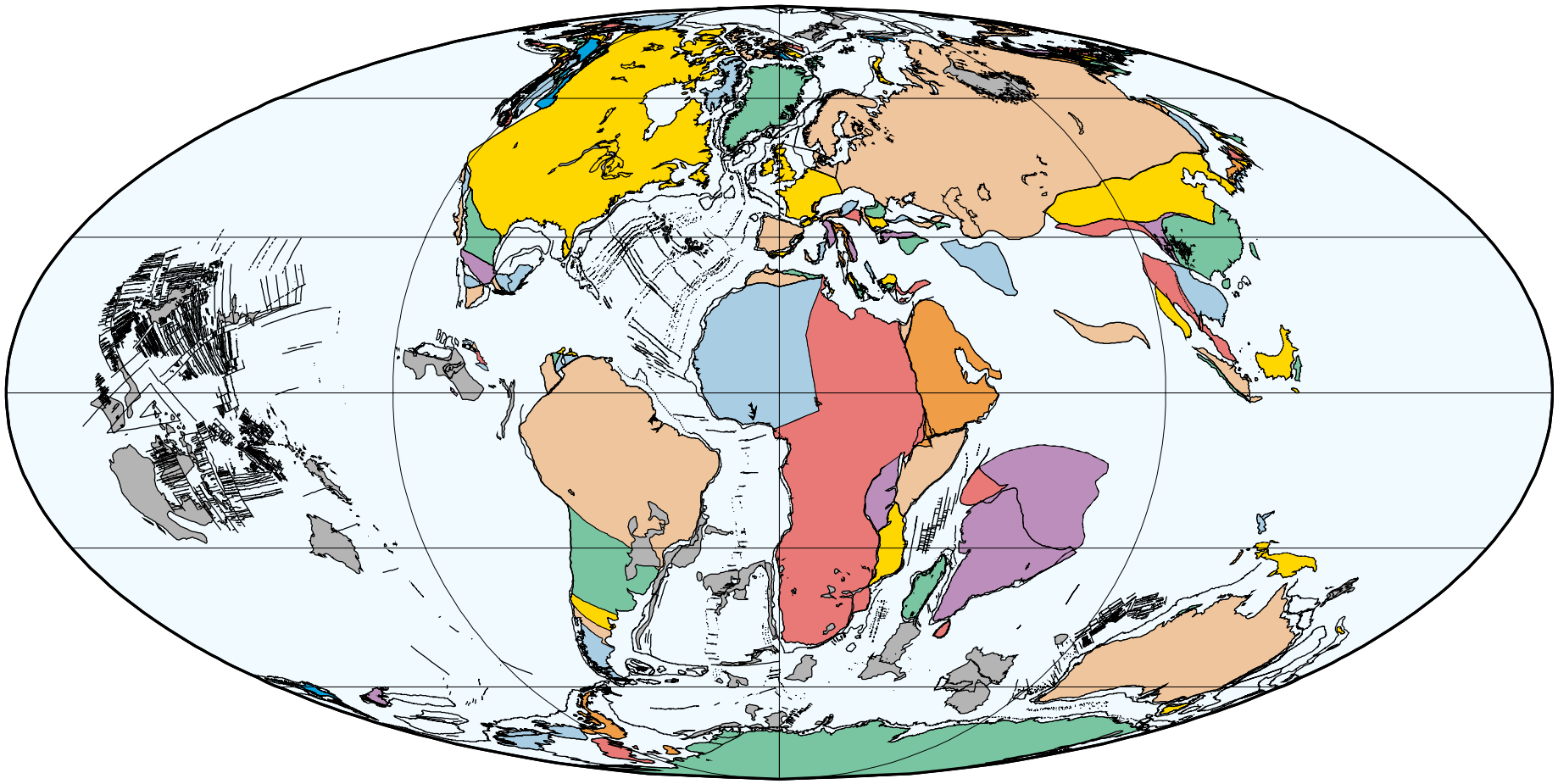


090 Ma

Turonian (Late Cretaceous)

PLATES/UTIG

July 2003

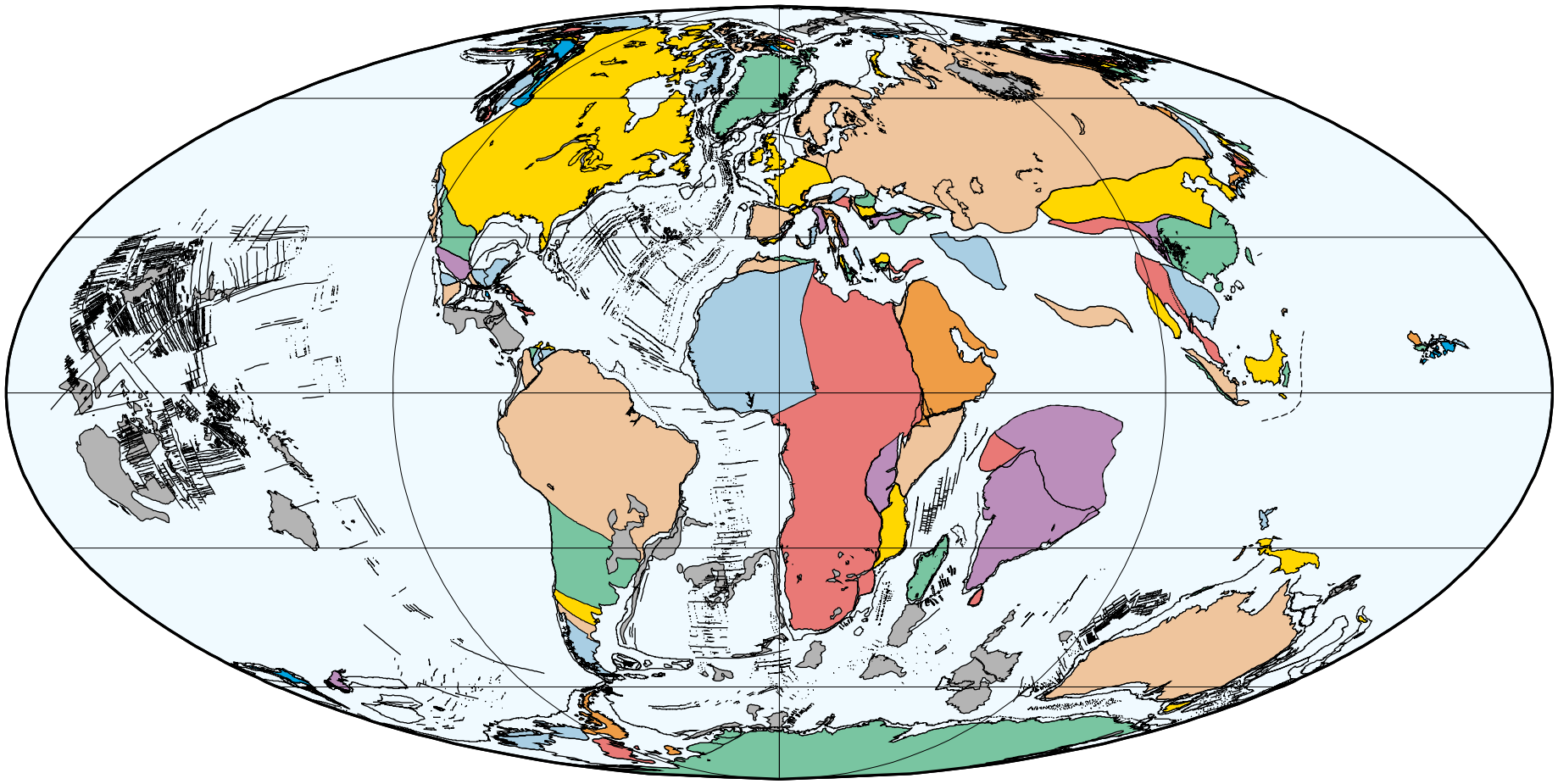


080 Ma

Campanian (Late Cretaceous)

PLATES/UTIG

July 2003

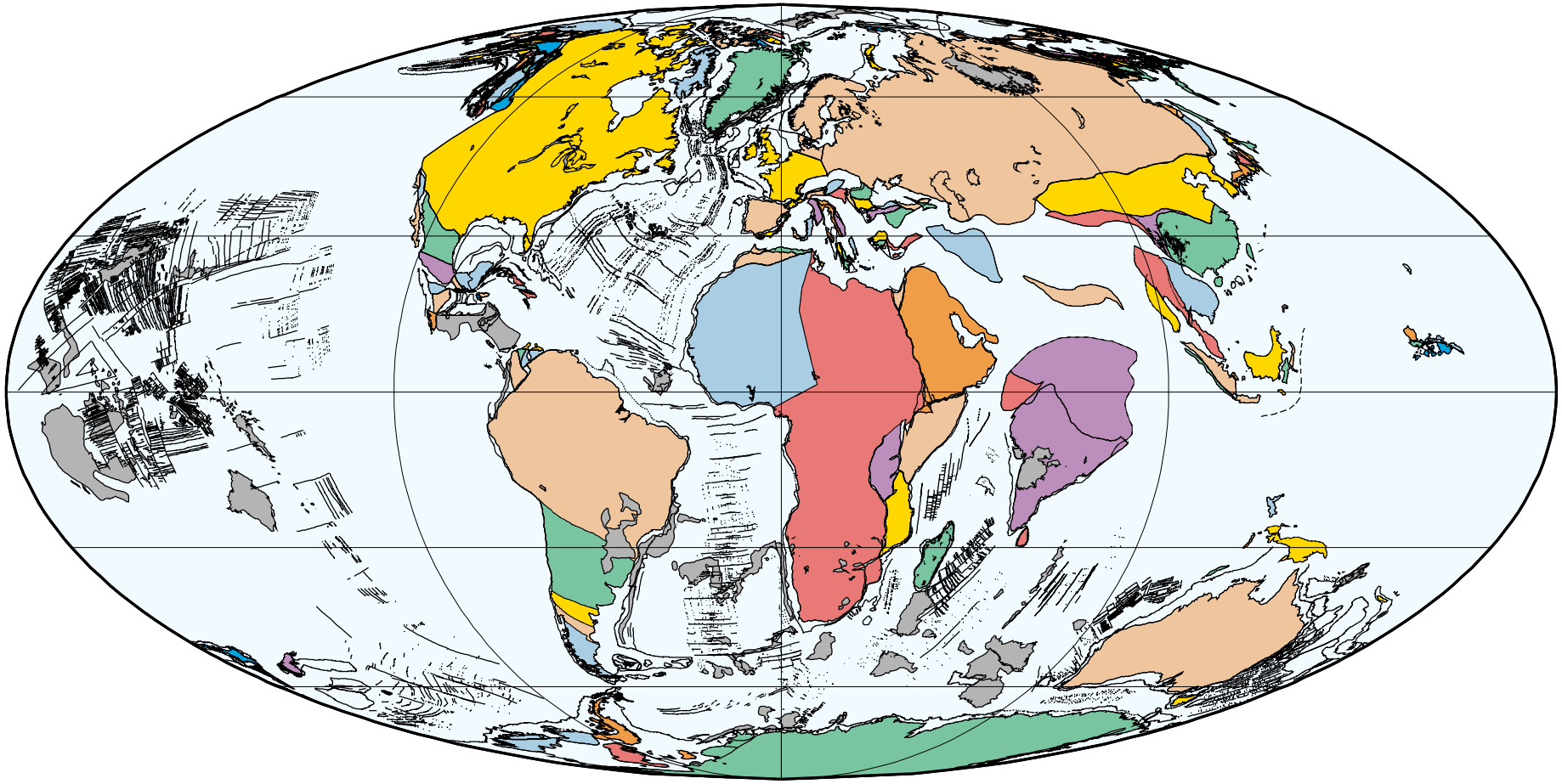


070 Ma

Maastrichtian (Late Cretaceous)

PLATES/UTIG

July 2003

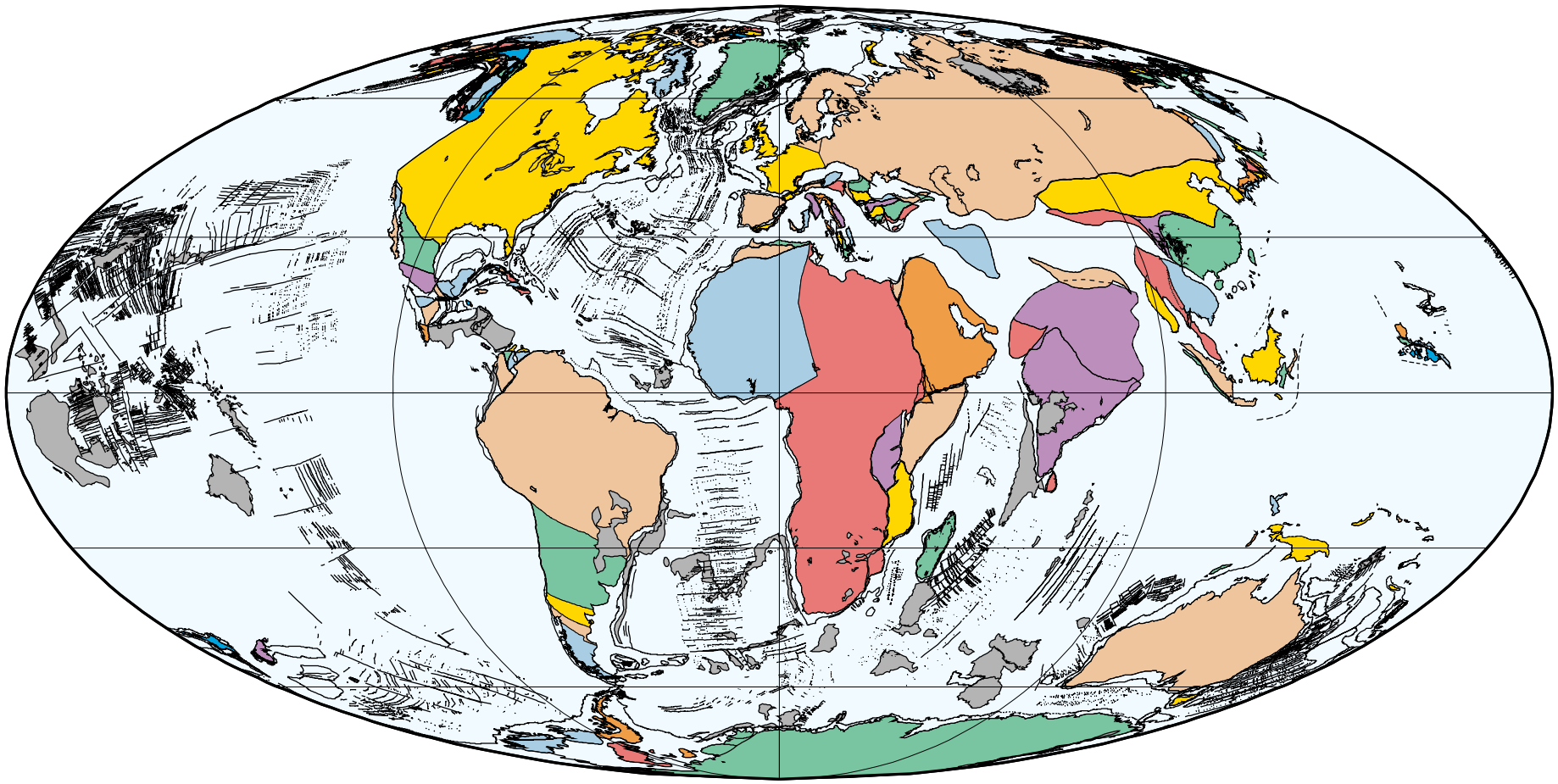


060 Ma

Late Paleocene

PLATES/UTIG

July 2003

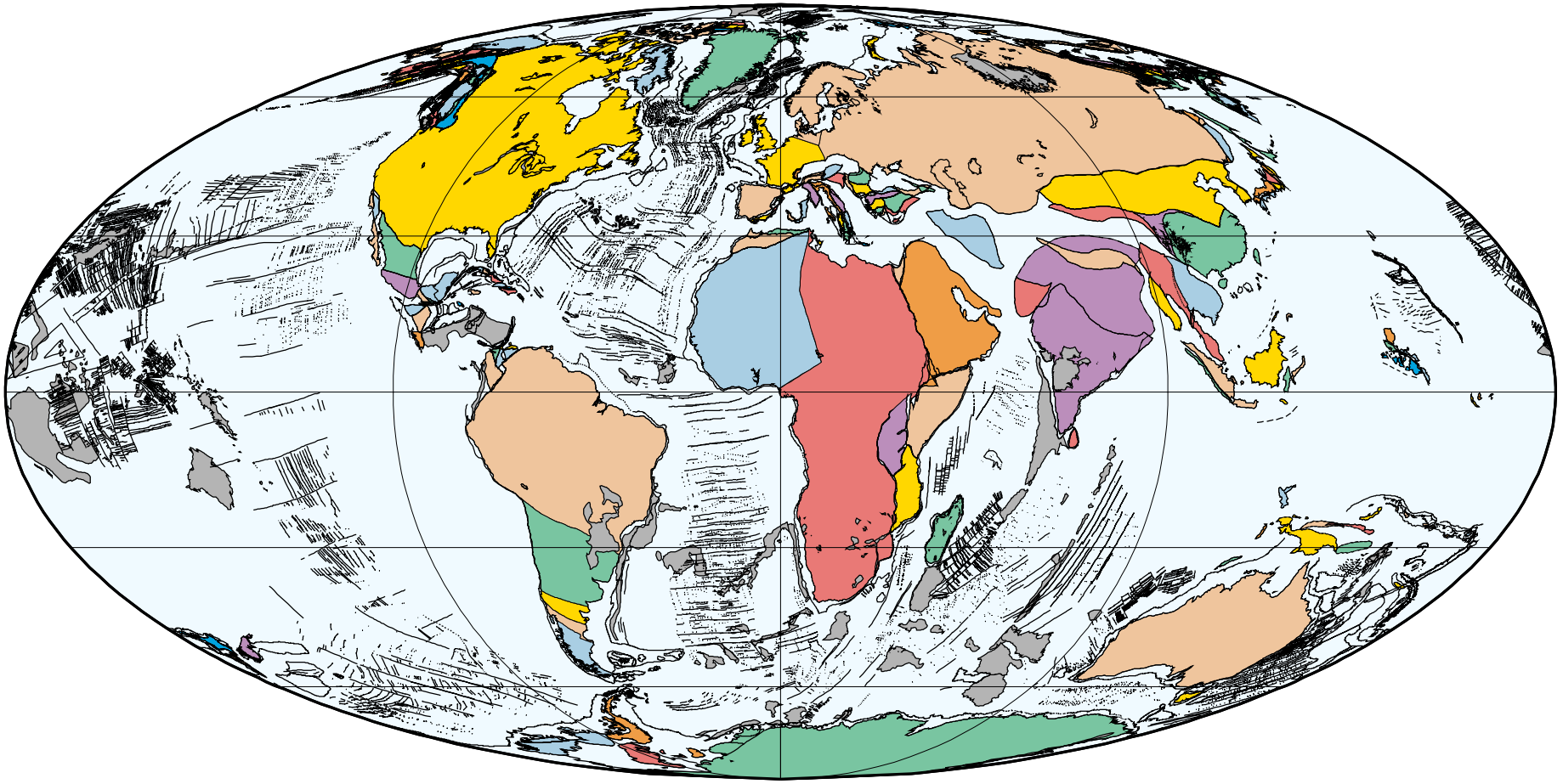


050 Ma

Early Eocene

PLATES/UTIG

July 2003

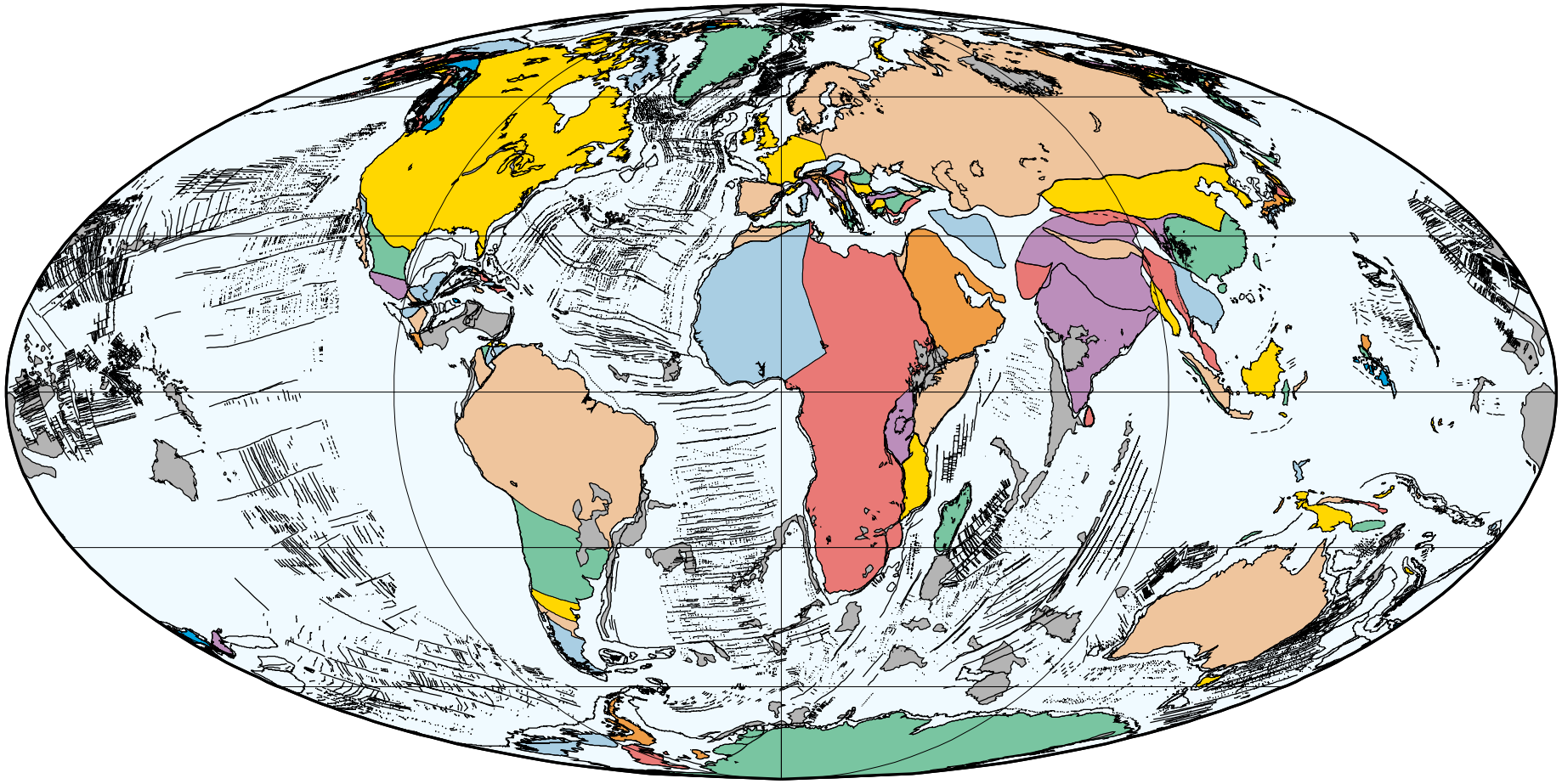


040 Ma

Middle Eocene

PLATES/UTIG

July 2003

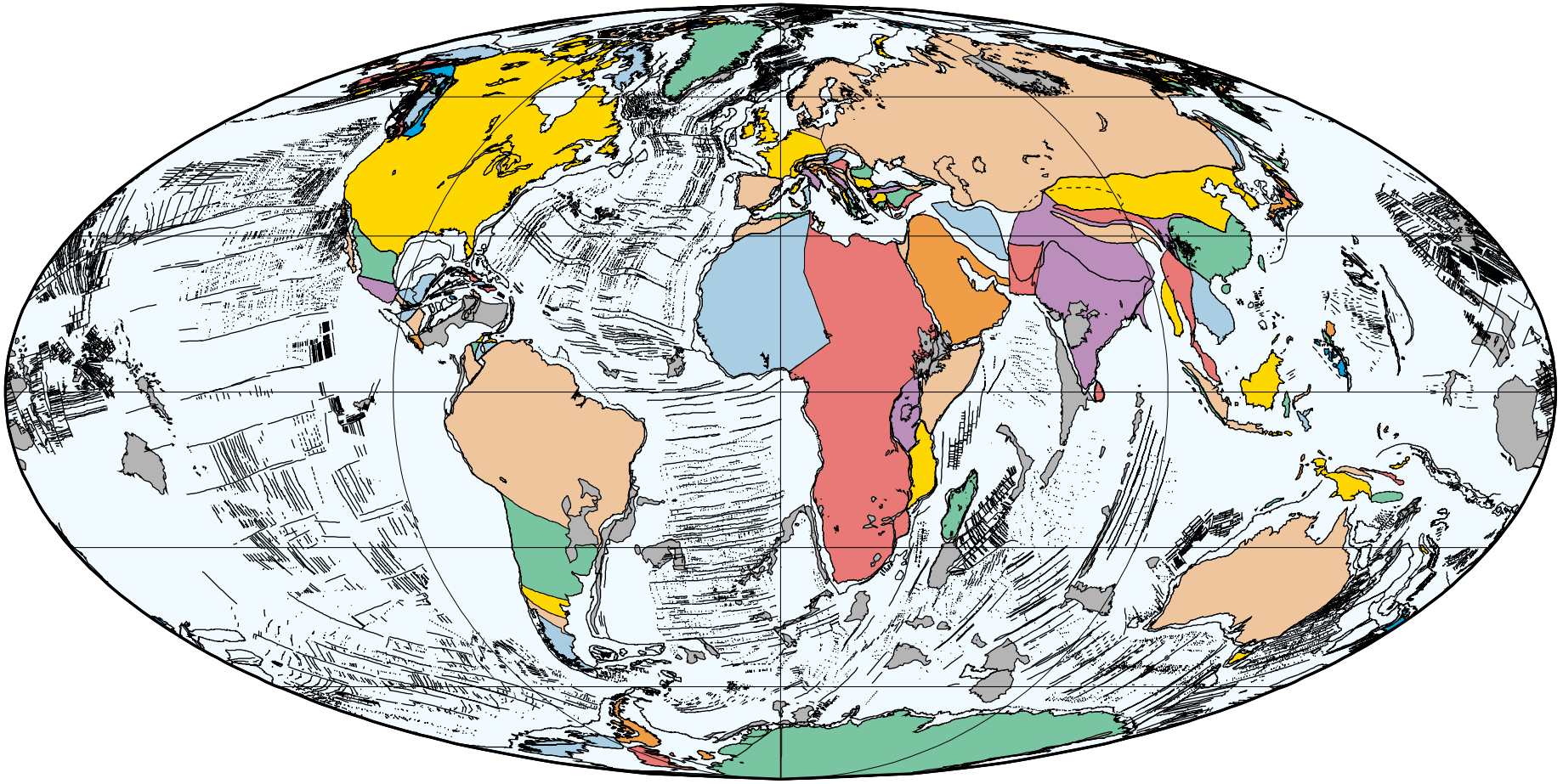


030 Ma

Early Oligocene

PLATES/UTIG

July 2003

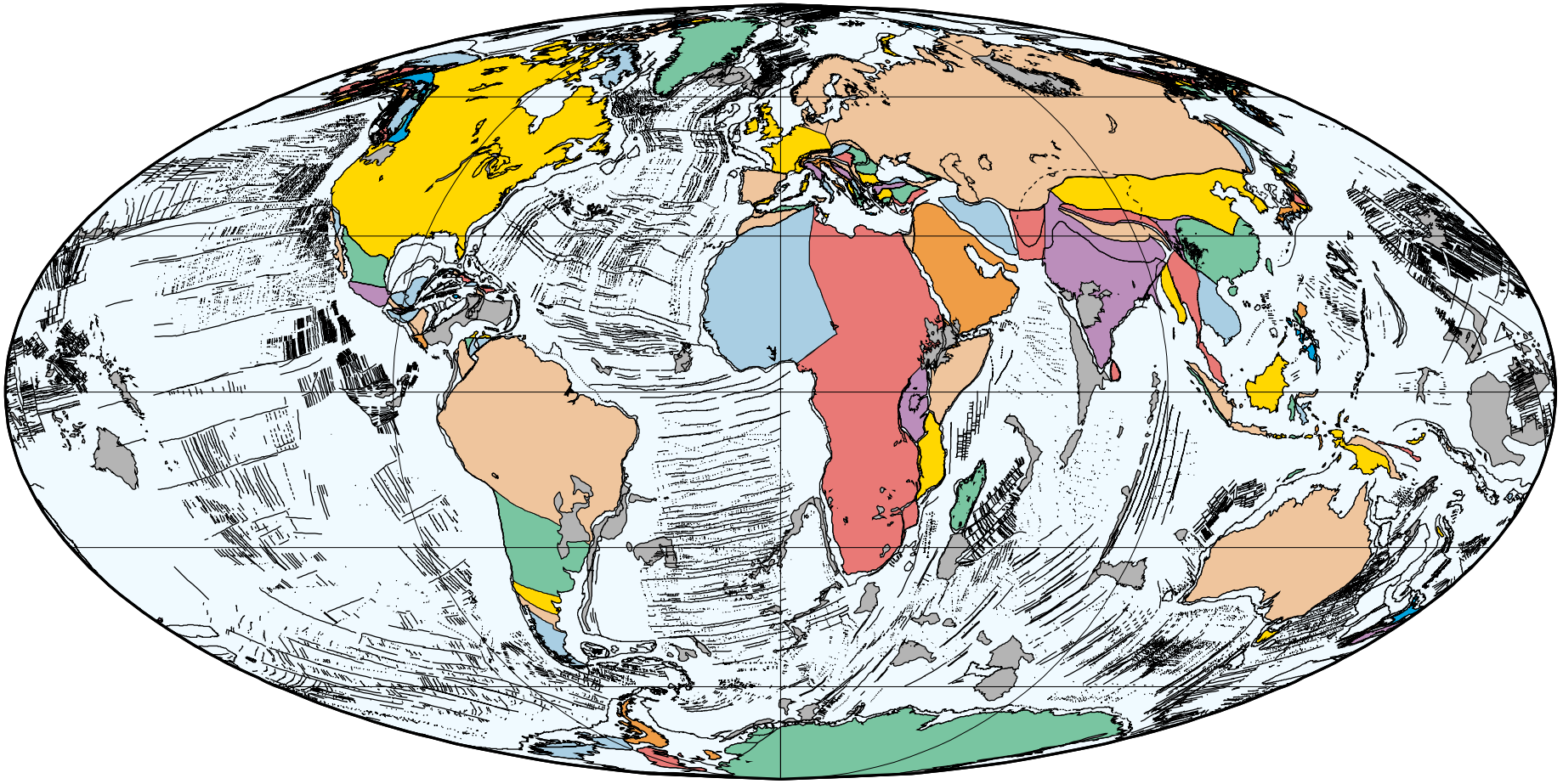


020 Ma

Early Miocene

PLATES/UTIG

July 2003

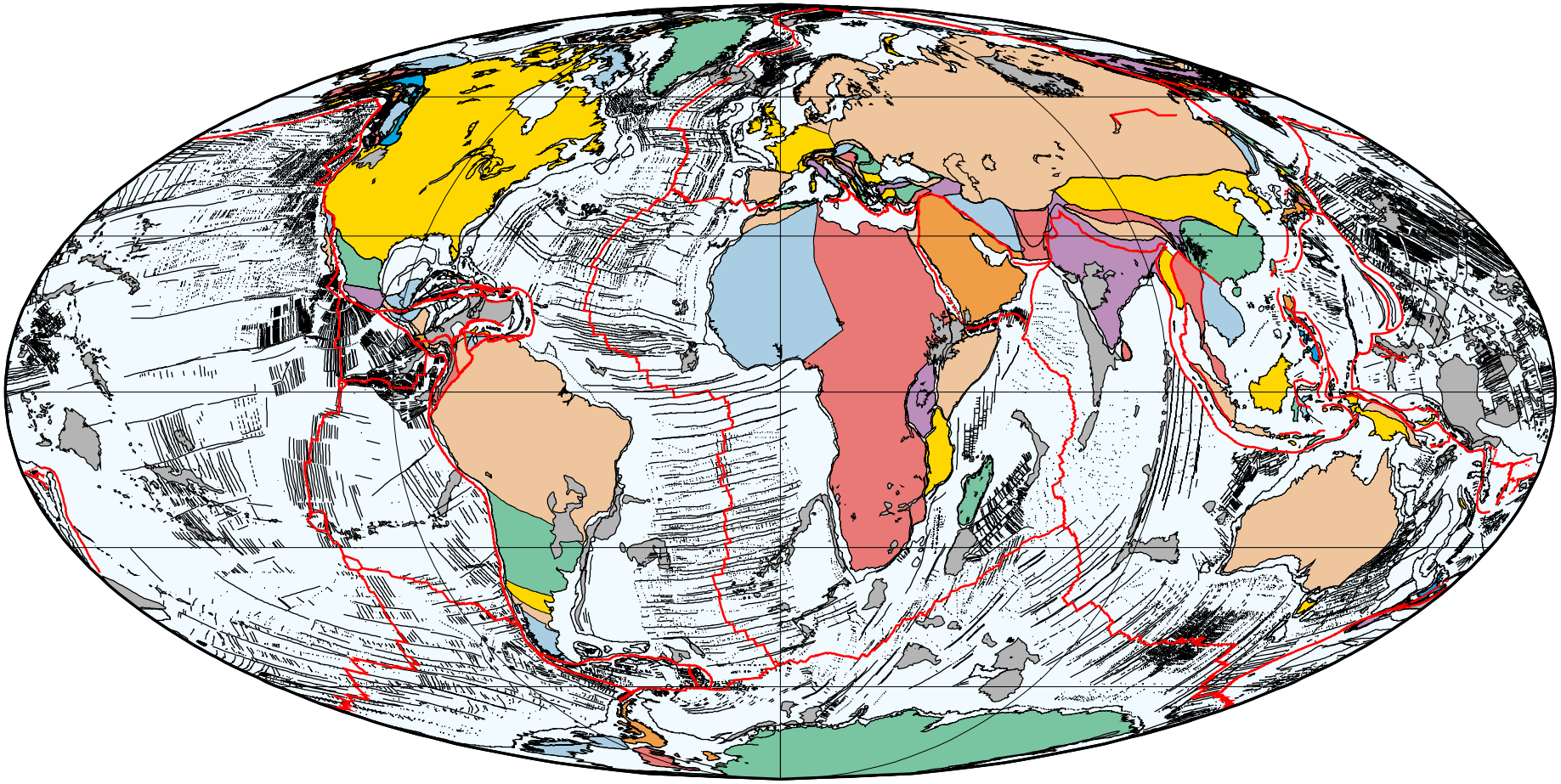


010 Ma

Late Miocene

PLATES/UTIG

July 2003

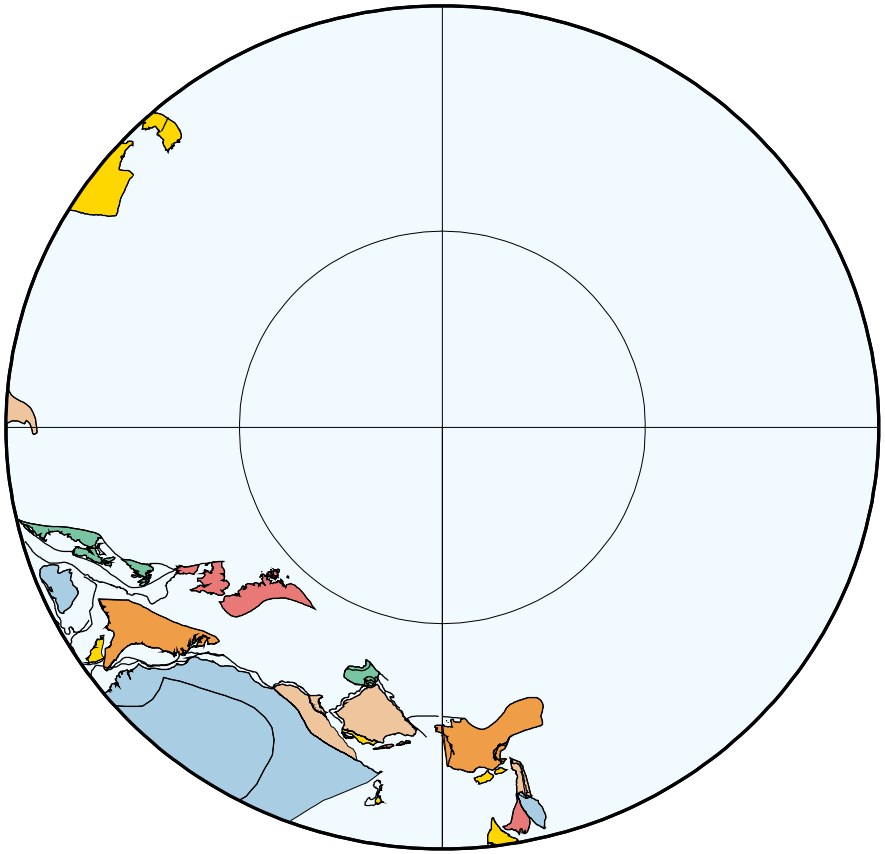


000 Ma

Present Day

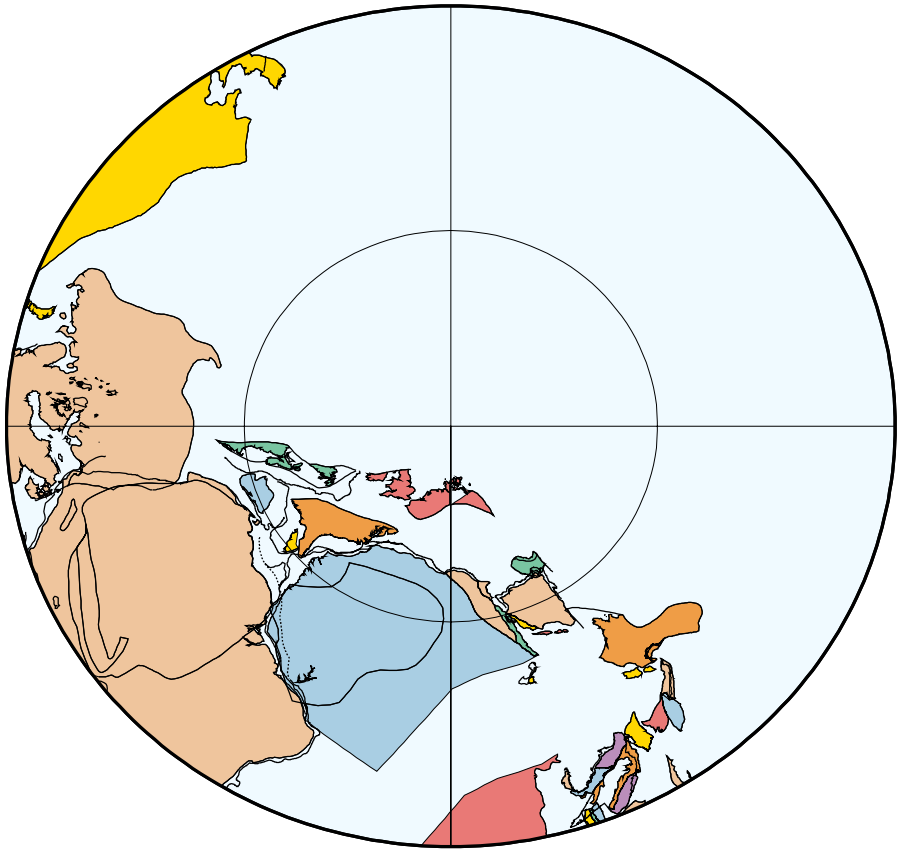
PLATES/UTIG

July 2003



750 Ma

PLATES/UTIG
July 2003



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PLATES/UTIG
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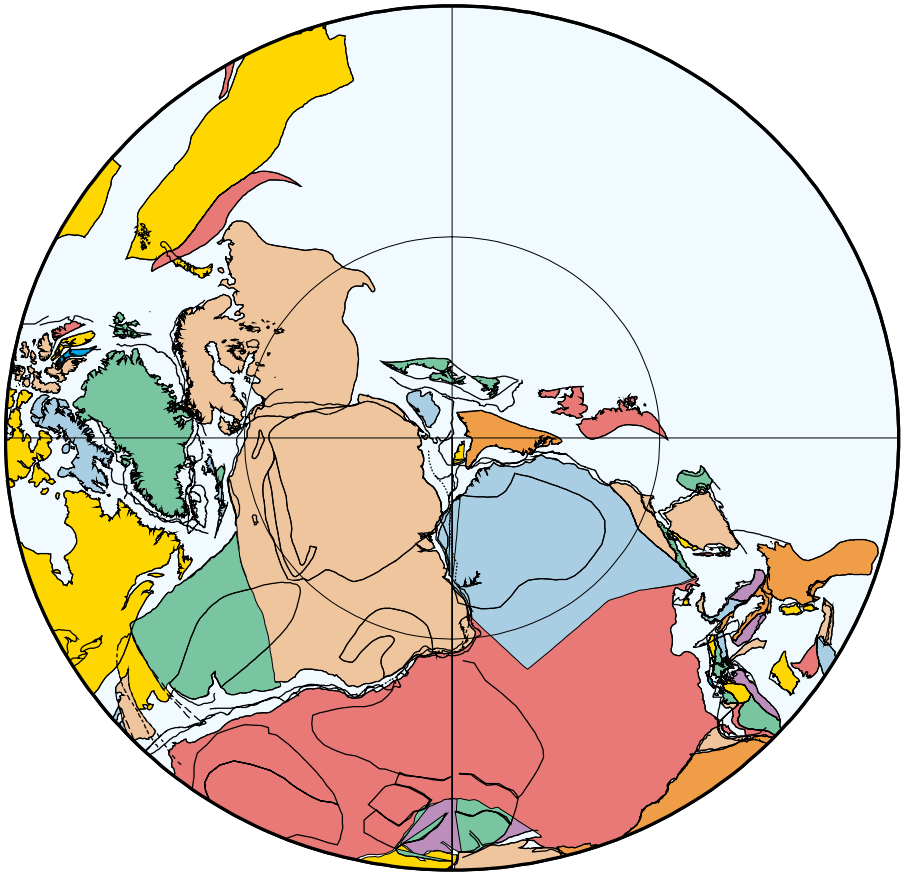

650 Ma

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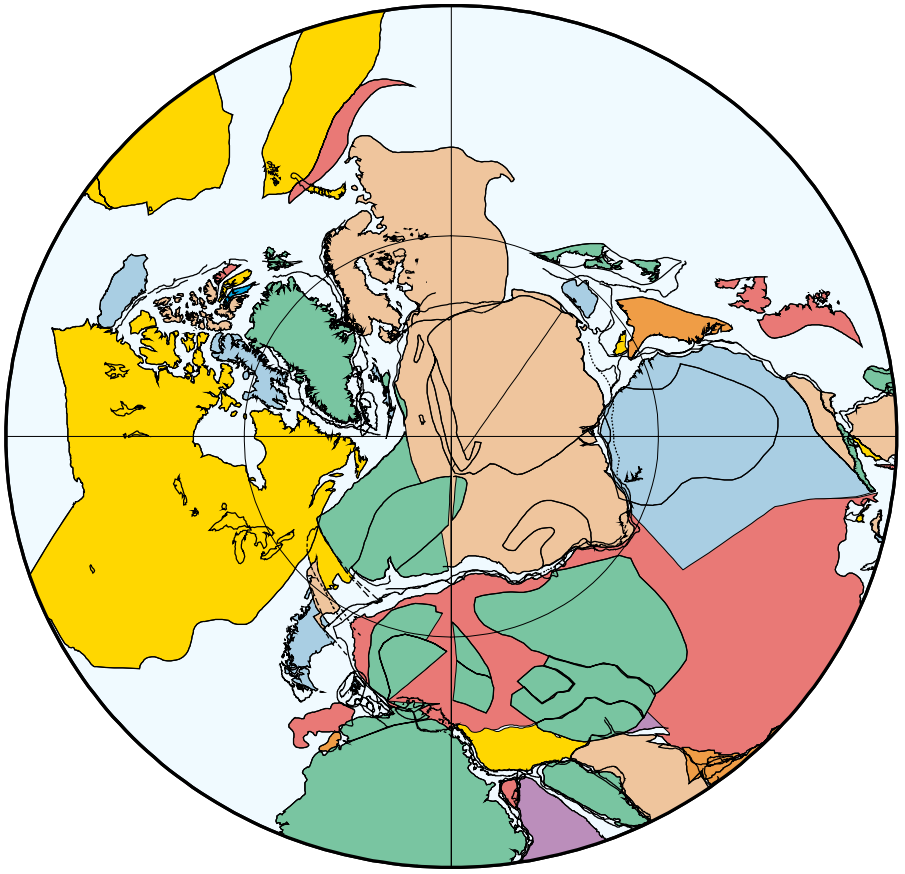

600 Ma

PLATES/UTIG
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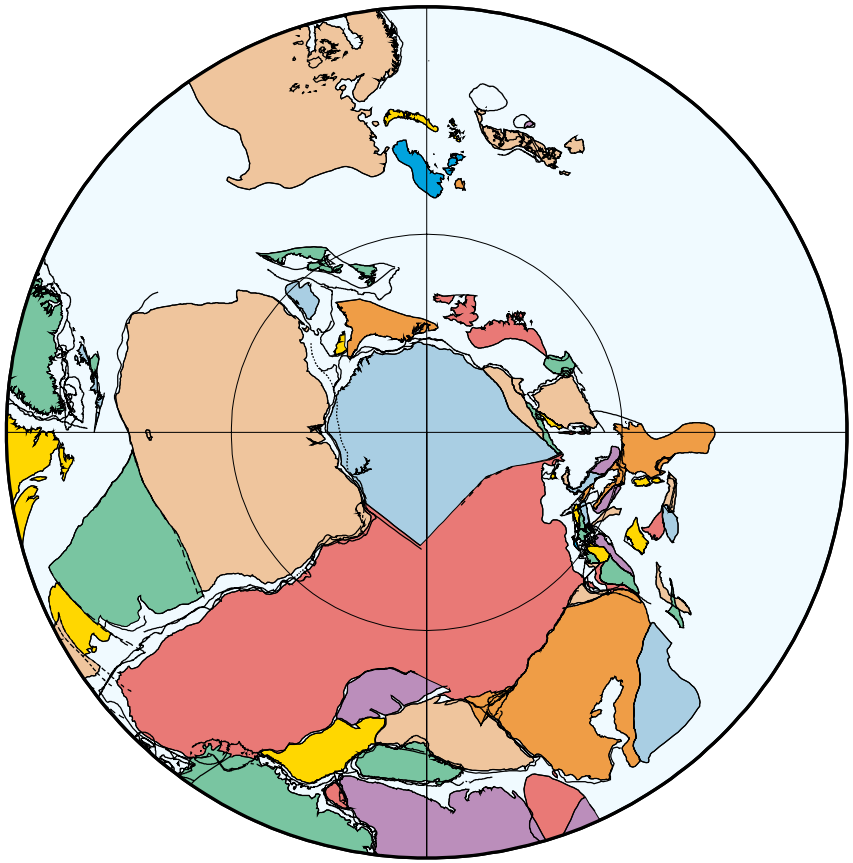

540 Ma

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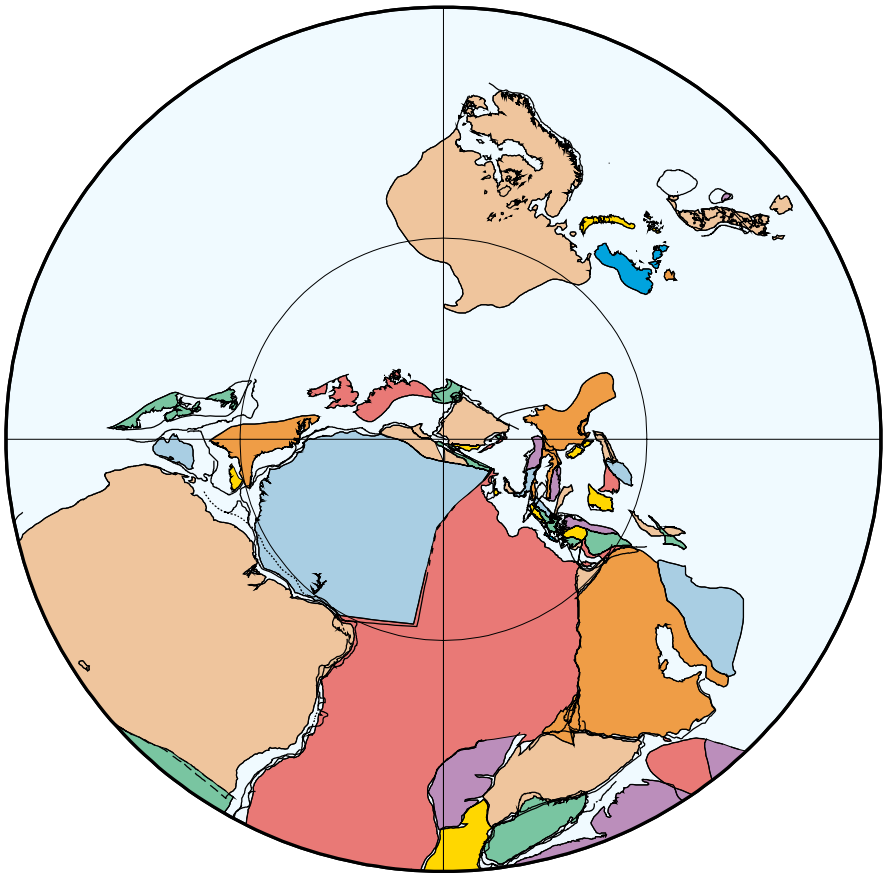

510 Ma

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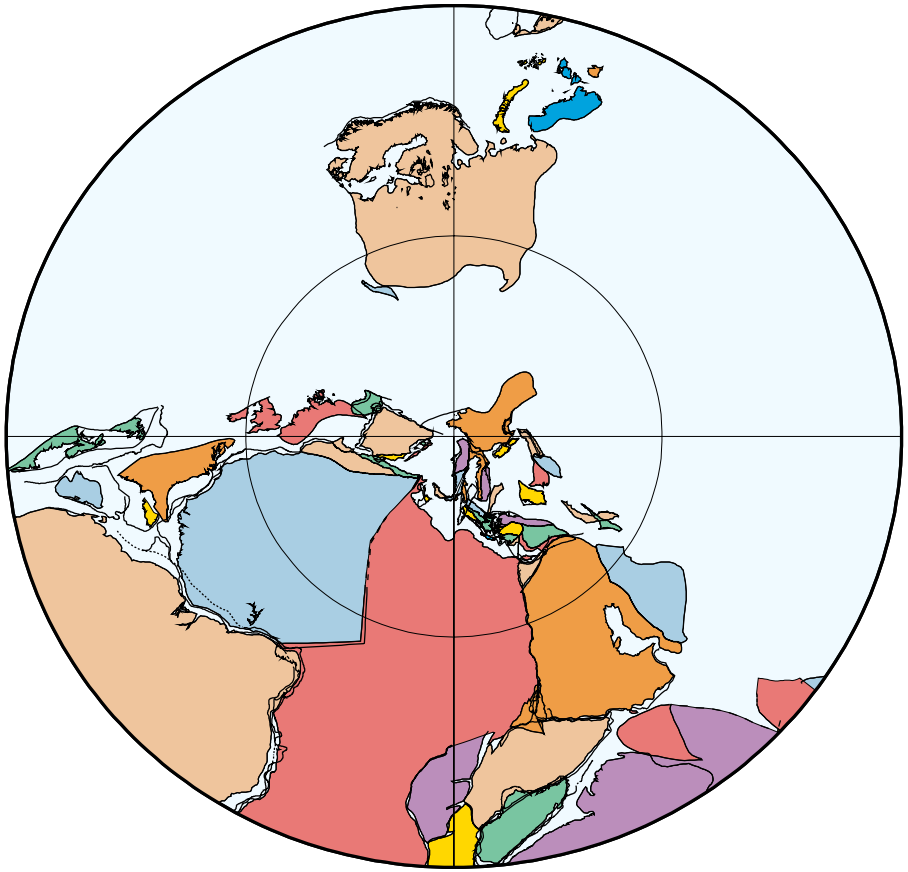

480 Ma

PLATES/UTIG
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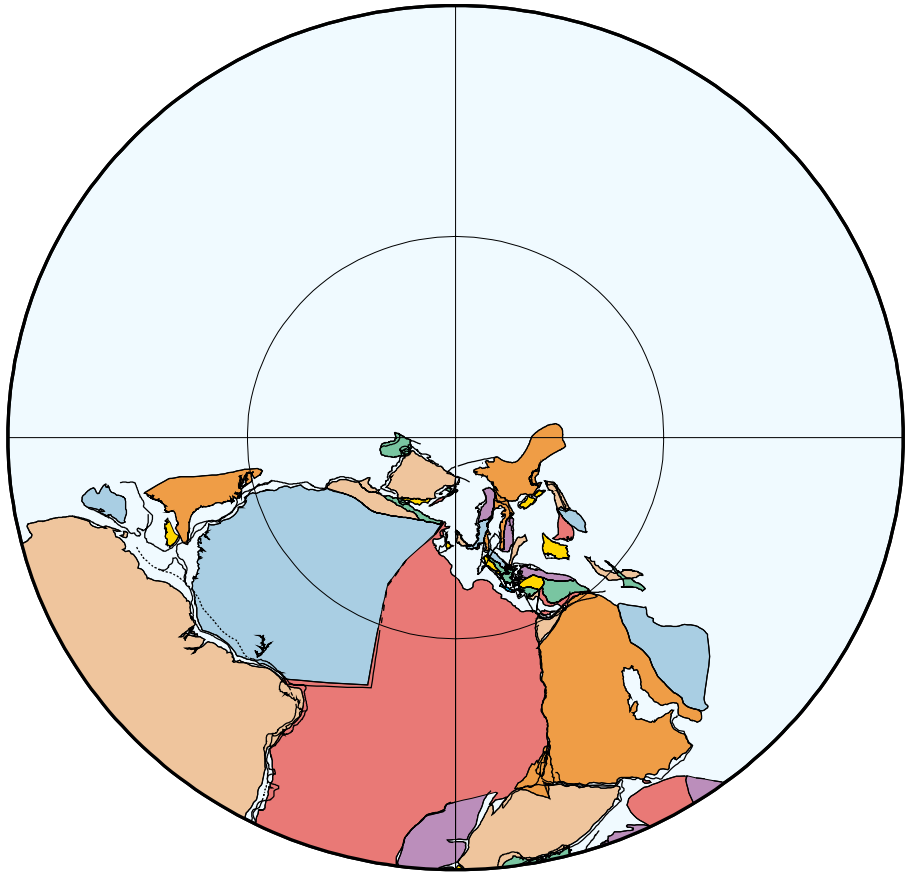

450 Ma

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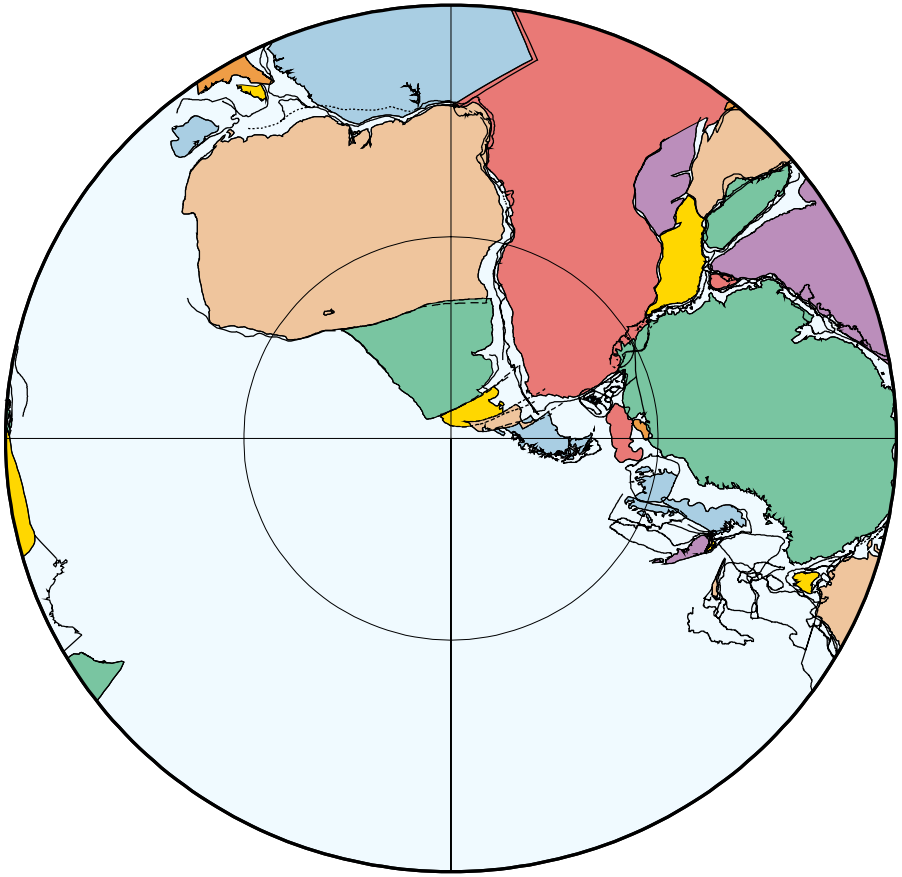

420 Ma

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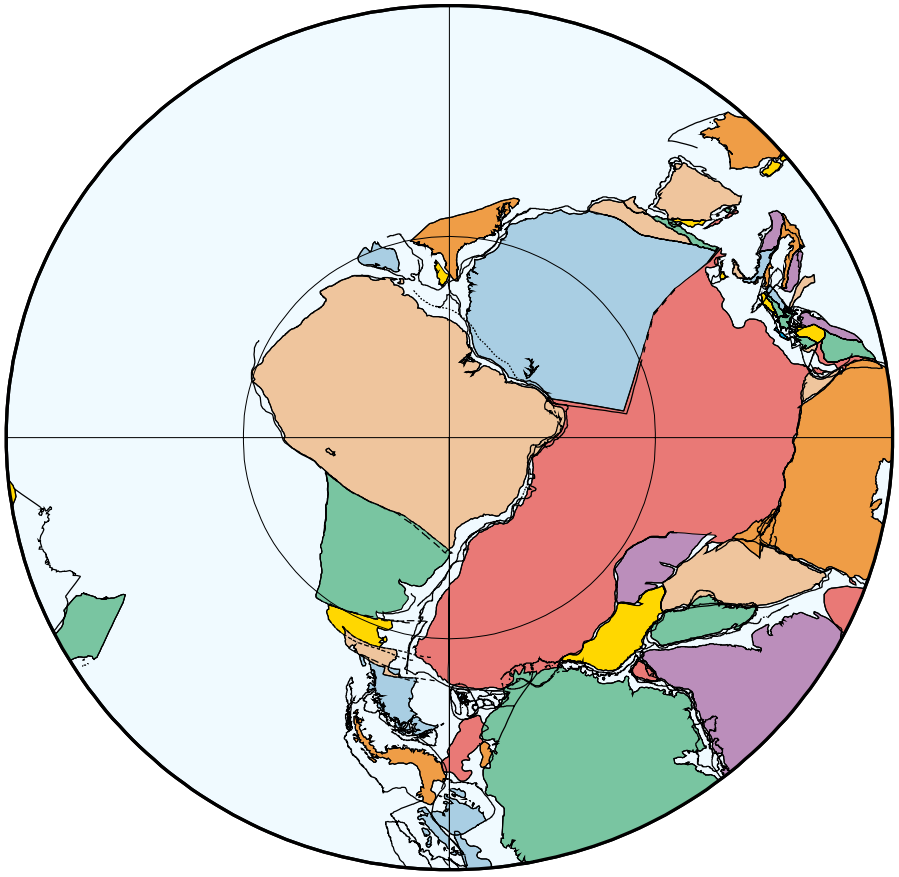

390 Ma

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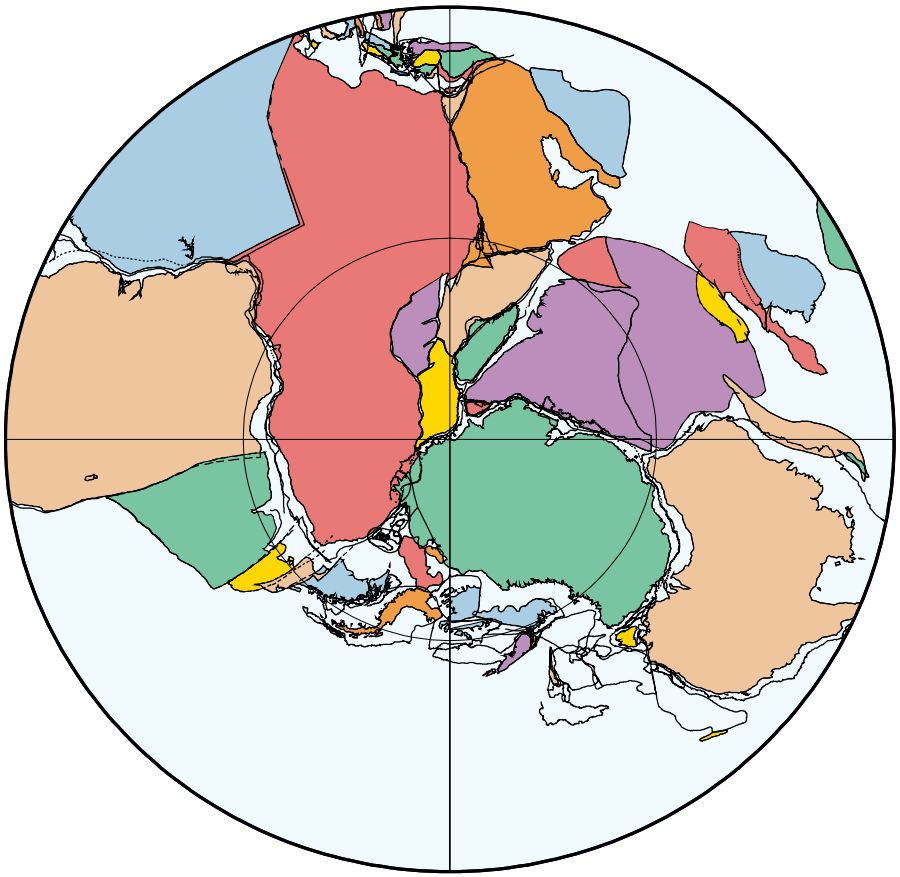

360 Ma

PLATES/UTIG
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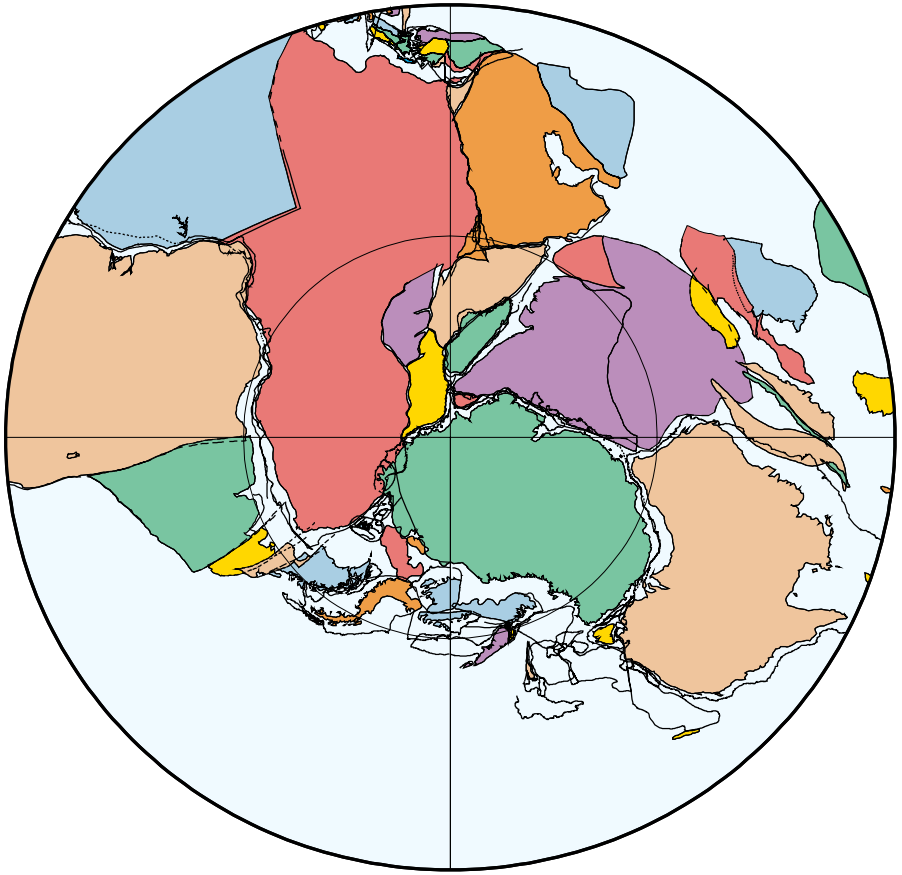

330 Ma

PLATES/UTIG
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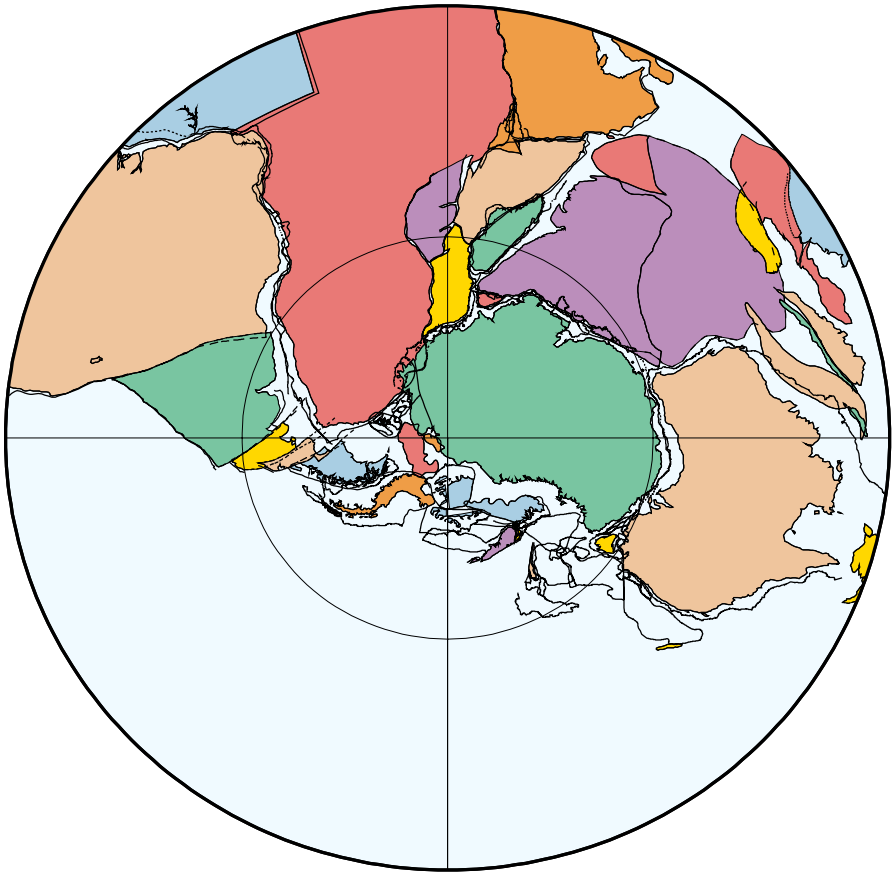

300 Ma

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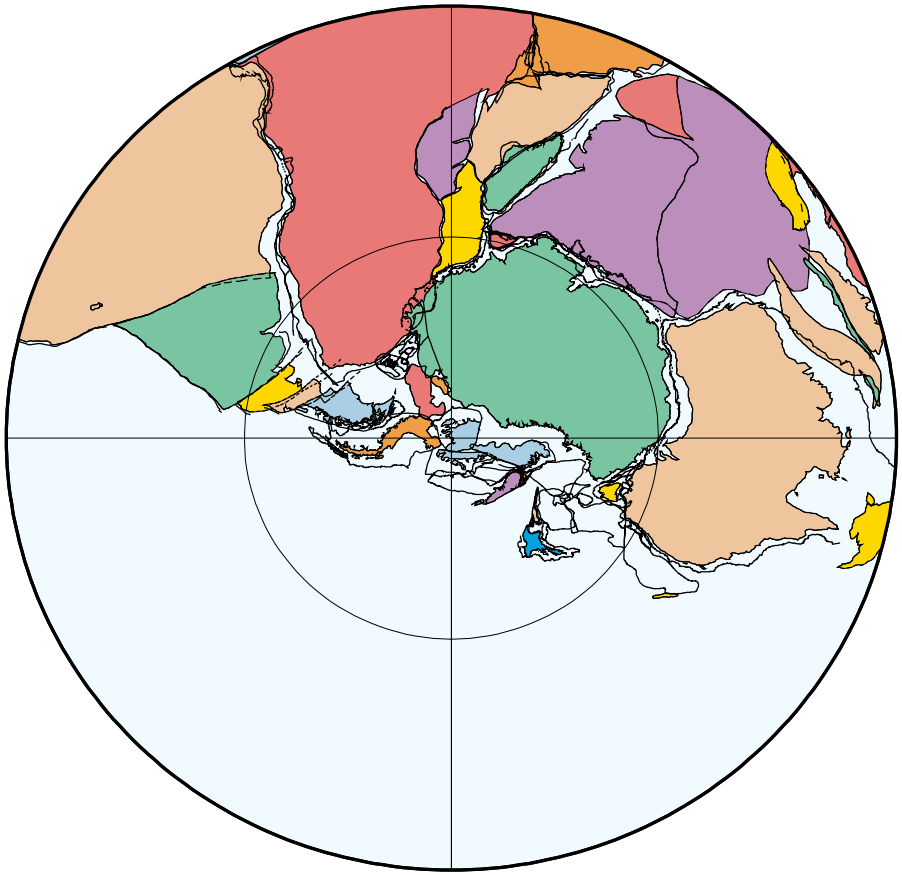

270 Ma

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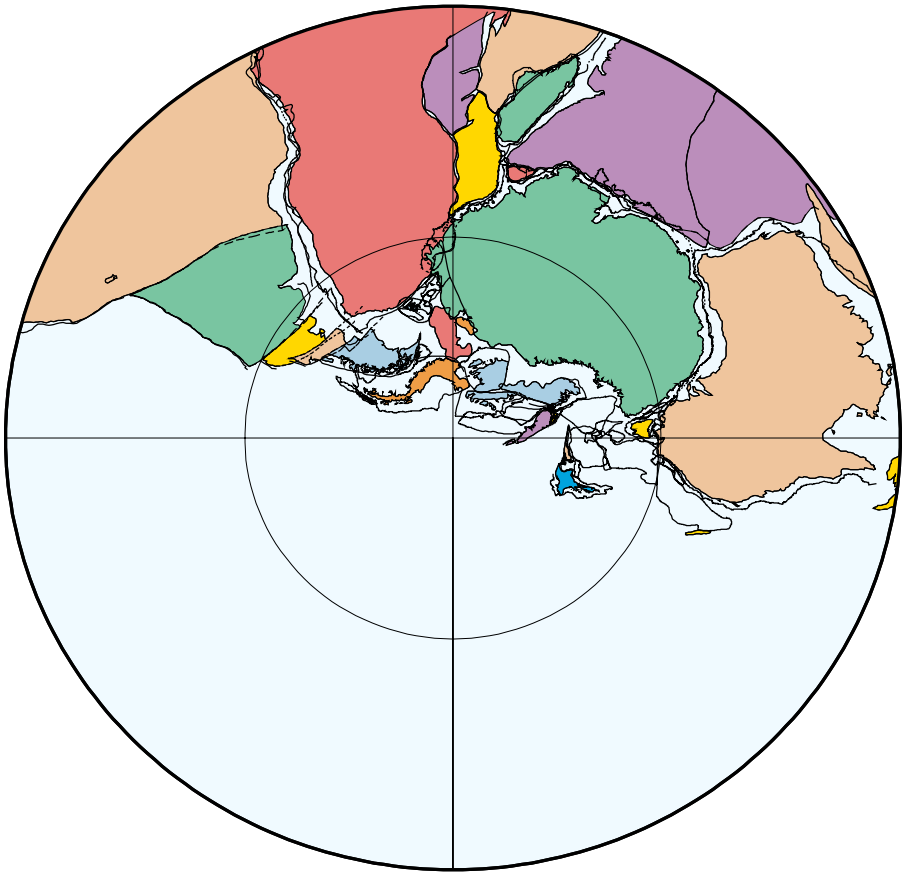

240 Ma

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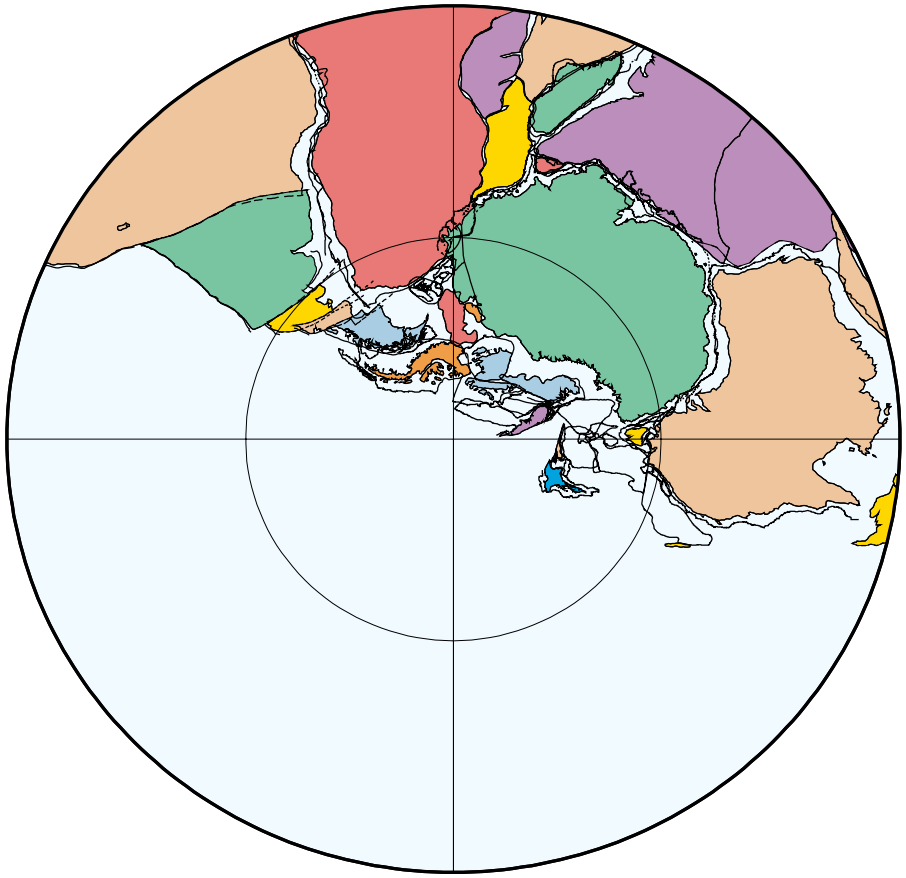

210 Ma

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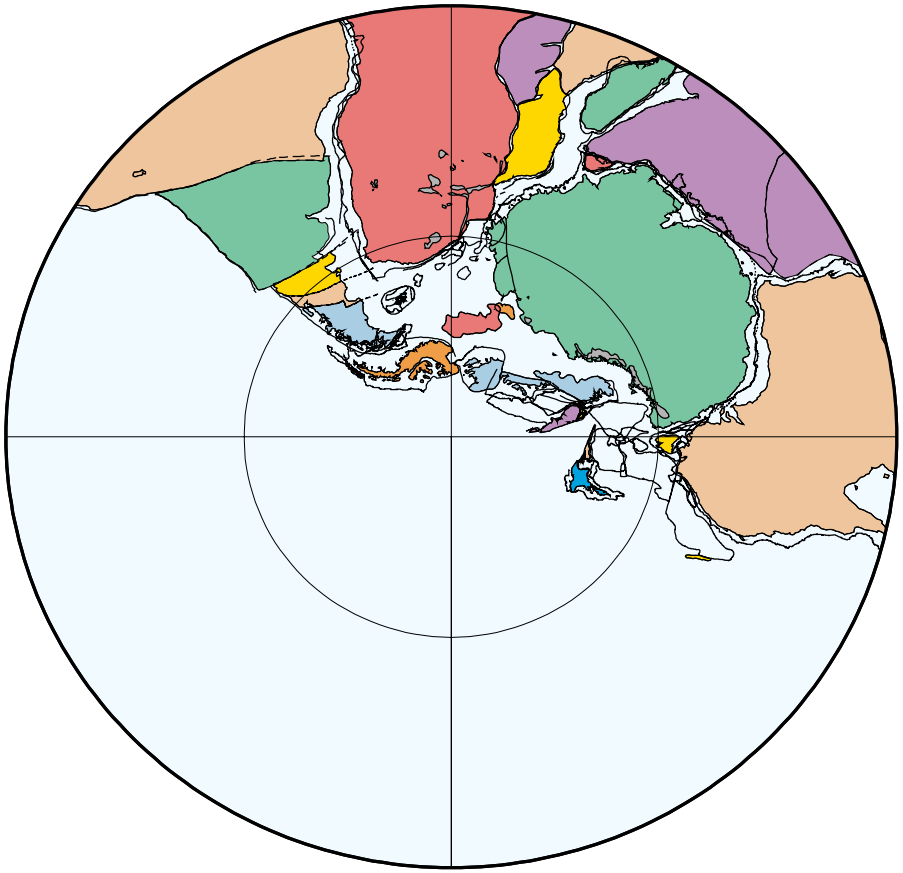

180 Ma

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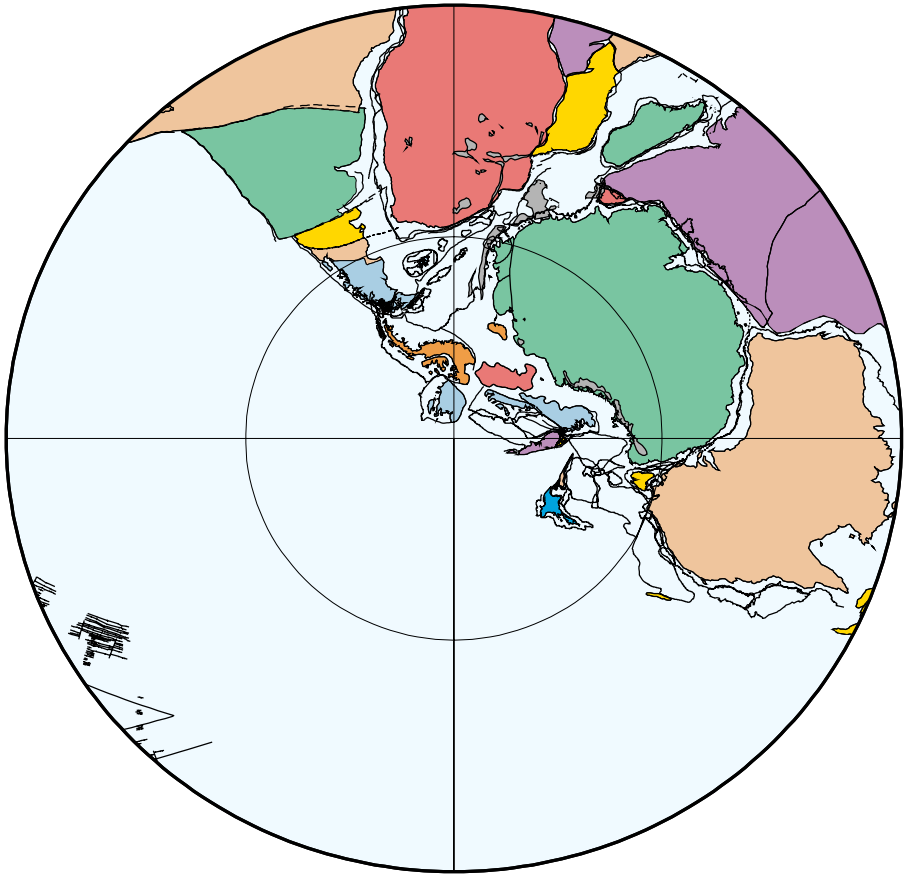

150 Ma

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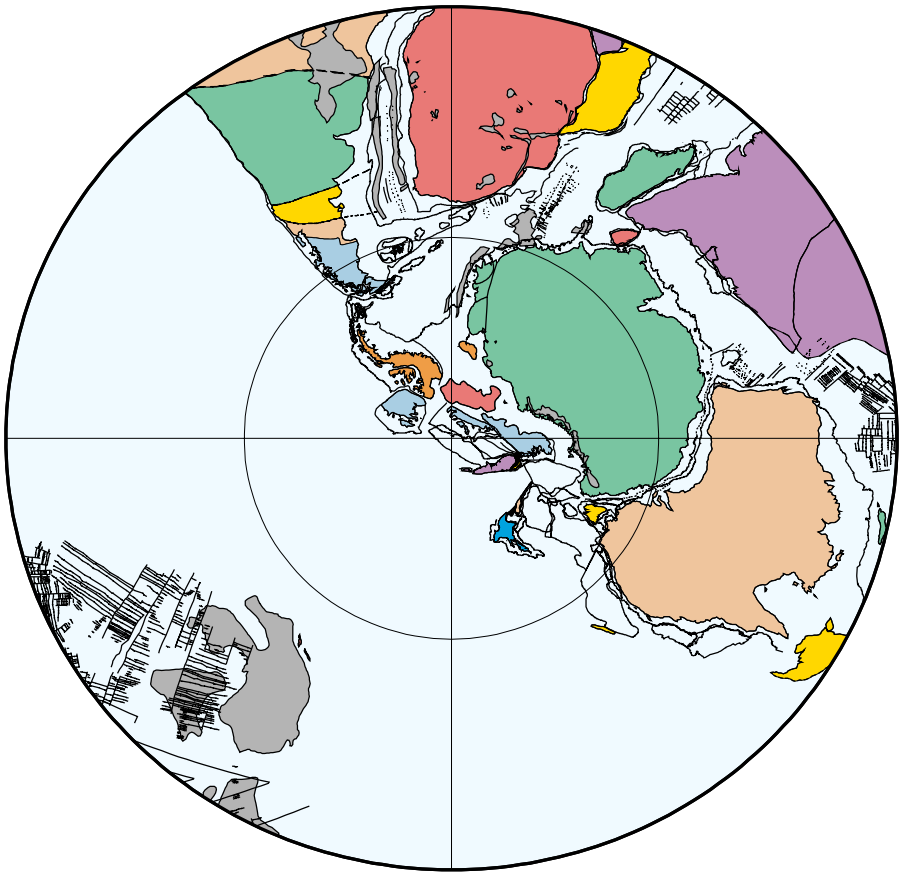

120 Ma

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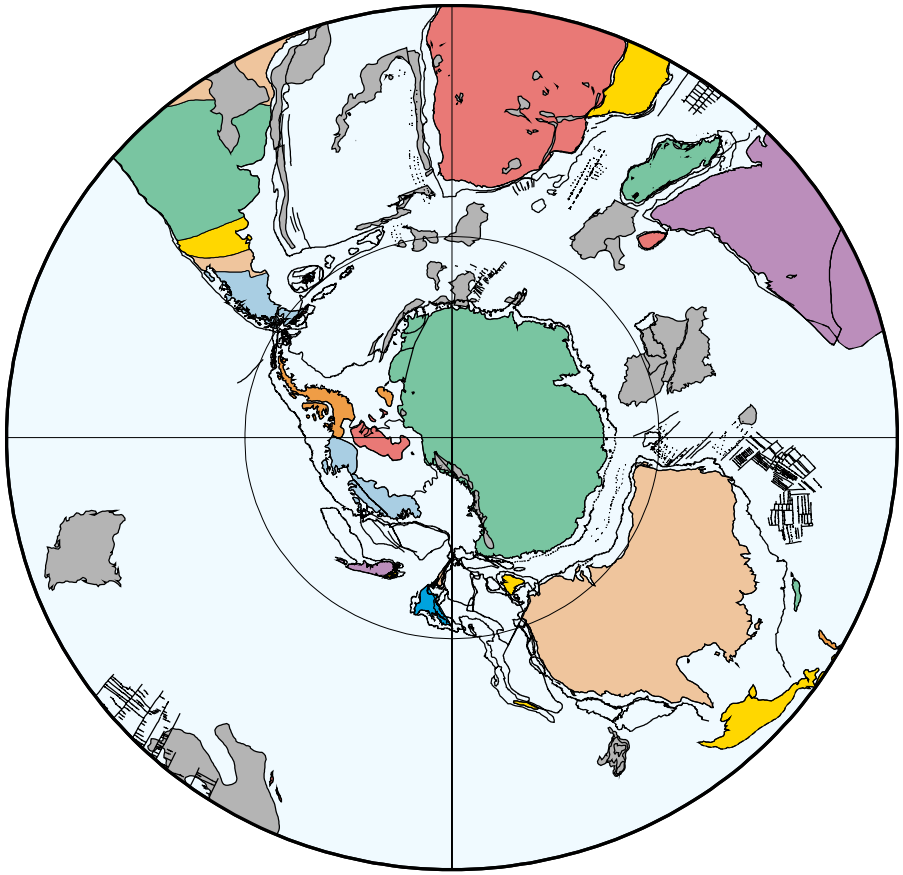

090 Ma

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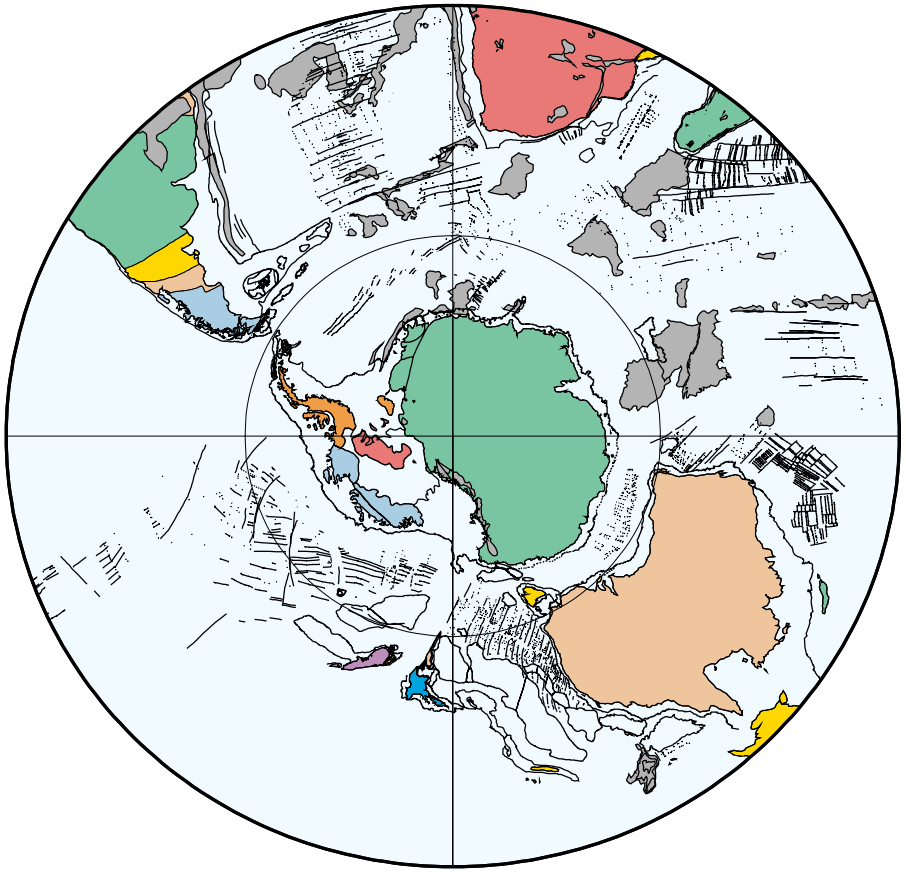

060 Ma

PLATES/UTIG
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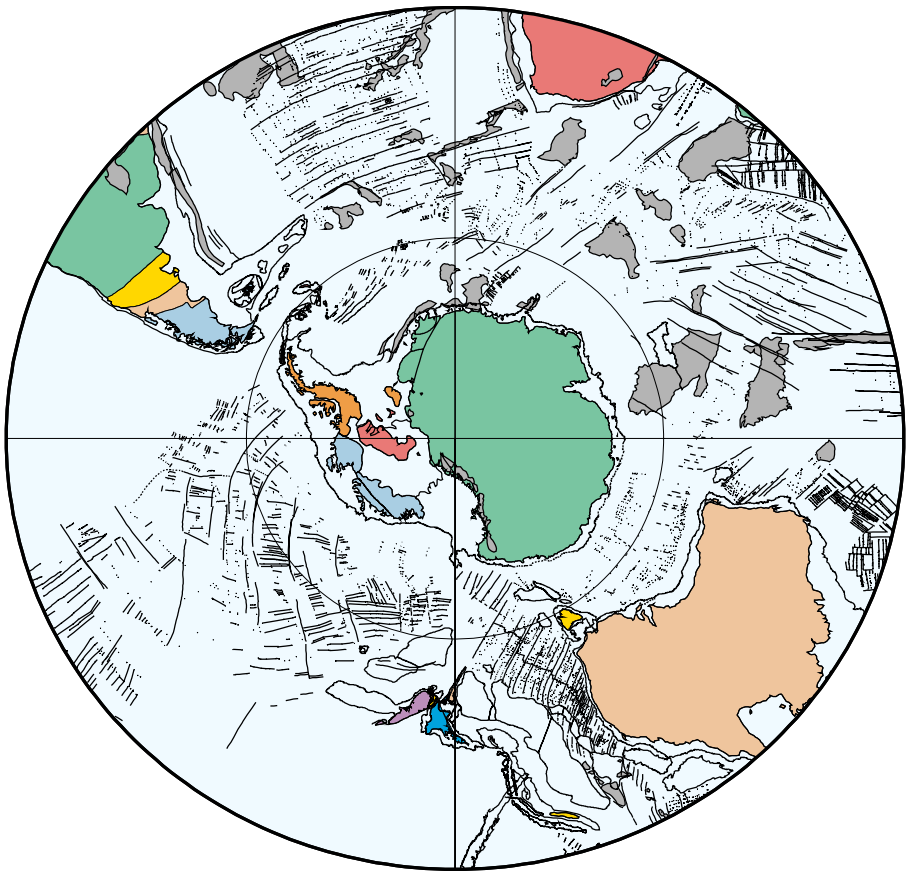

030 Ma

PLATES/UTIG
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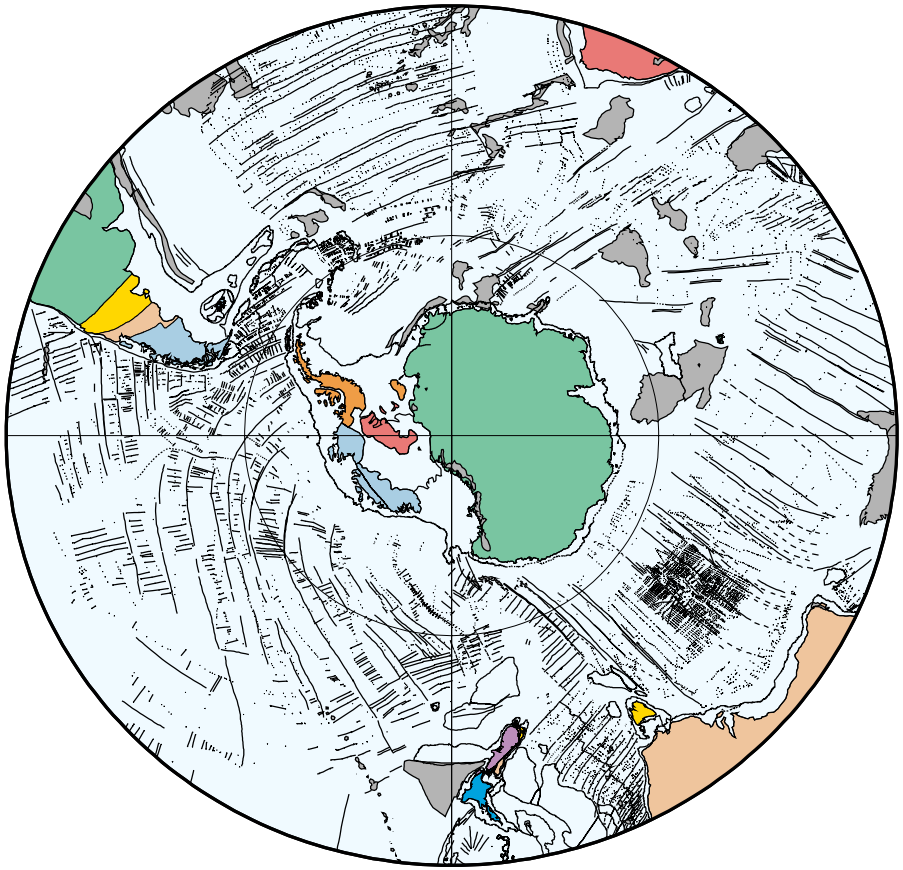

0 Ma

PLATES/UTIG
July 2003

References for Plate Model

Ames, L., Tilton, G.R., and Zhou, G., 1993, Timing of collision of the Sino-Korean and Yangtse cratons: U-Pb zircon dating of coesite-bearing eclogites, Geology, 21:339-342.

Audley-Charles, M.G., Ballantyne, P.D., and Hall, R., 1988, Mesozoic-Cenozoic rift-drift sequence of Asian fragments from Gondwanaland, Tectonophysics, 155: 317-330.

Auzende, J.-M., Lafoy, Y., and Marsset, B., 1988, Recent geodynamic evolution of the north Fiji basin (southwest Pacific), Geology, 16:925-929.

Auzende, J.M., Hey, R., Pelletier, B., and Lafoy, Y., 1993, Propagating Accretion Zone East of the North Fiji Basin Ridge (SW Pacific), Comptes Rendus de L Academie Des Sciences Serie II - Mecanique Physique Chimie Sciences de La Terre et de L Univers, 317(5): 671-678.

Ben-Avraham, Z., 1978, The evolution of marginal basins and adjacent shelves in East and Southeast Asia, Tectonophysics, 45: 269-288.

Besse, J., and Courtillot, V., 1988, Paleogeographic maps of the continents bordering the Indian Ocean since the Early Jurassic, Journal of Geophysical Research, 93: 11,791-11,808.

Boillot, G., Mougenot, D., Girardeau, J., and Winterer, E.L., 1989, Rifting processes on the West Galicia margin, Spain, *in* Tankard, A.J. and Balkwill, H.R. (editors), Extensional Tectonics and Stratigraphy of the North Atlantic, American Association of Petroleum Geologists Memoir 46, pp. 363-377. (Rifting between Galicai and Spain occurred between Early Valanginian and Late Aptian.)

Boucher, G. 1978, Rotation of Alaska and the opening of the Canada Basin, U.S. Geol. Survey, Open File Rep. 78-96, 12 pp.

Burke, K. and Rutherford, E., 1987, Sumba as a sideways slipping sliver, unpublished manuscript.

Burrett, C., Long, J., and Stait, B., 1990, Early-Middle Palaeozoic biogeography of Asian terranes derived from Gondwana, *in* McKerrow, W.S. and Scotese, C.R. (editors), Palaeozoic Palaeogeography and Biogeography, Geological Society Memoir No. 12, published by The Geological Society, London, pp. 163-174.

Cande, S.C., and Kent, D.V., 1995, Revised calibration of the geomagnetic polarity timescale for the Late Cretaceous and Cenozoic, Journal of Geophysical Research - Solid Earth, 100(B4): 6093-6095.

Cande, S., LaBrecque, J.L., and Haxby, W.B., 1988, Plate kinematics of the South Atlantic: Chron 34 to present, Journal of Geophysical Research, 93(B11): 13,479-13,492.

Cande, S.C., Raymond, C.A., Stock, J., and Haxby, W.F., 1995, Geophysics of the Pitman fracture zone and Pacific-Antarctic plate motions during the Cenozoic, Science, 270(5238): 947-953.

Chen, J., Dong, S., Deng, Y., and Chen, Y., 1993, Interpretation of K-Ar ages of the Dabie orogen-a differential uplifted block, Geological Review, 39(1): 17-22.

Courjault-Radé, P., Debrenne, F., and Gandin, A., 1992, Palaeogeographic and geodynamic evolution of the Gondwana continental margins during the Cambrian, Terra Nova, 4: 657-667.

Crook, K.A.W. and Belbin, L., 1978, The Southwest Pacific area during the last 90 million years, Journal of Geological Society of Australia 25(1): 23-40.

Curray, J.R., Moore, D.G., Lawver, L.A., Emmel, F.J., Raitt, R.W., Henry, M., and Kieckhefer, R., 1979, Tectonic of the Andaman Sea and Burma, in Geological and geophysical investigations of continental margins, AAPG Memoir 29, pp. 189-198.

Dalziel, I.W.D., 1997, Overview: Neoproterozoic-Paleozoic geography and tectonics: Review, hypothesis, environmental speculation, Geological Society of America Bulletin, vol. 109(1), pp. 16-42.

Dalziel, I.W.D., Dalla Salda, L.H., and Gahagan, L.M., 1994, Paleozoic Laurentia-Gondwana interaction and the origin of the Appalachian Andean mountain system, Geological Society of American Bulletin, vol. 106, pp. 243-252.

Dalziel, I.W.D. and Grunow, A.M., 1992, Late Gondwanide tectonic rotations within gondwanaland, Tectonics, v. 11(3), pp. 603-606.

Dalziel, I.W.D., Powell, C. McA., Gahagan, L.M., and Li, Z.X., A succession of supercontinents (in review for the volume, "Tectonic Controls for Climatic Reconstructions").

DeMets, C., Gordon, R.G., Argus, D.F., and Stein, S., 1990, Current plate motions, Geophysical Journal International, 101: 425-478.

DeMets, C., Gordon, R.G., Argus, D.F. and Stein, S., 1994. Effect of recent revisions to the geomagnetic reversal time scale on estimates of current plate motions. Geophysical Research Letters, 21(20): 2191-2194.

DeMets, C., and Wilson, D.S., 1997, Relative motions of the Pacific, Rivera, North American, and Cocos plates since 0.78 Ma, Journal of Geophysical Research - Solid Earth, 102(B2): 2789-2806.

DePaor, D.G., Bradley, D.C., Eisenstadt, G., and Phillips, S.M., 1989, The Arctic Eurekan orogen: A most unusual fold-and-thrust belt, Geol. Soc. Am. Bull., 101: 952-967.

Dlaey, M.C., Hooper, B.G.D., and Smith, D.G., 1987, Tertiary plate tectonics and basin evolution in Indonesia, Proceedings of Indonesian Petroleum Association, 16th Annual Convention, pp. 399-428.

Dunbar, J.A. and Sawyer, D.S., 1989, Patterns of continental extension along the conjugate margins of the Central and North Atlantic oceans and Labrador Sea, Tectonics, 8: 1059-1077.

Duncan, R.A. and Clague, D.A., 1985, Pacific plate motion recorded by linear volcanic chains, *in* The Pacific Ocean, Nairn, Stehli, and Uyeda (eds.), The Ocean Basins and Margins, 7: 89-121.

Duncan, R.A. and Richards, M.A., 1991, Hotspots, mantle plumes, flood basalts, and true polar wander, Reviews of Geophysics, 29: 31-50.

Dyment, J., 1991, Structure et évolution de la lithosphere océanique dans l'océan Indien: apport des anomalies magnétique, Ph.D. thesis, Universite Louis Pasteur de Strasbourg, Ecole et Observatoire de Physique du Globe, p. 256.

Engebretson, D.C., 1983, Relative motions between oceanic and continental plates in the Pacific Basin, Ph.D., thesis, Stanford University, 211 pp.

Enkin, R.J., Yang, Z., Chen, Y., and Courtillot, V., 1992, Paleomagnetic constraints on the geodynamic history of the major blocks of China from the Permian to the Present, Journal of Geophysical Reseach, 97(B10): 13,953-13989.

Epp 1978

Faure, M., Natal'in, B.A., Monie, P., Vrublevsky, A.A., Borukaiev, C., and Prikhodko, V., 1995, Tectonic evolution of the Anuy metamorphic rocks (Sikhote Alin, Russia) and their place in the Mesozoic geodynamic framework of East Asia, Tectonophysics, 241:279-301.

Fleitout, L., Dalloubeix, Ch., and Moriceau, Ch., 1989, Small-wavelength geoid and topography anomalies in the South Atlantic Ocean: a clue to new hot-spot tracks and lithospheric deformation, Geophysical Research Letters, 16(7): 637-640.

Gaina, C., Müller, R.D., Royer, J.-Y., Stock, J., Hardebeck, J., and Symonds, P., 1998, The tectonic history of the Tasman Sea: A puzzle with 13 pieces, Journal of Geophysical Research, vol. 103(B6), pp. 12413-12433.

Gaina, C., R.D. Mueller, J.-Y. Royer, and P. Symonds, Evolution of the Louisiade triple junction, Journal of Geophysical Research, 104, 12927-12939, 1999.

Gallagher, J.J., Jr., 1984, Philippine Islands: A tectonic railroad siding, in M.T. Halbouty (ed.), Future Petroleum Provinces of the World, AAPG Memoir 40, pp. 515-527.

Gose, W.A., Helper, M.A., Connelly, J.N., Hutson, F.E., and Dalziel, I.W.D., 1997, Paleomagnetic data and U-Pb isotopic age determinations from Coats Land, Antarctica: Implications for late Proterozoic plate reconstructions, Journal of Geophysical Research, vol. 102, no. B4, p. 7887-7902.

Gradstein, F.M., Agterberg, F.P., Ogg, J.G., Hardenbol, J., van Veen, P., Thierry, J., and Huang, Z., 1994, A Mesozoic time scale, Journal of Geophysical Research, 99(B12): 24051-24074.

Grunow, A.M., Kent, D.V., and Dalziel, I.W.D., 1991, New paleomagnetic data from Thurston Island: implications for the tectonics of West Antarctica and Weddell Sea opening, Journal of Geophysical Research, v. 96(B11), pp. 17,935-17,954.

Haile, N.S., 1979, Paleomagnetic evidence for the rotation of Seram, Indonesia, in S. Uyeda, R.W. Murphy and K. Kobayashi (eds.), Geodynamics of the Western Pacific, pp. 191-198.

Hall, R. and Nichols, G., 1990, Terrane amalgamation in the Philippine Sea margin, Tectonophysics, 181: 207-222.

Hamilton, W., 1979, Tectonics of the Indonesian region, Geological Survey Professional Paper 1078, 345 p.

Hardy, N., 1991, Tectonic evolution of the easternmost Panama Basin: Some new data and inferences, Journal of South American Earth Sciences, 4: 261-270.

Henderson, L.J. and Gordon, R.G., 1981, Oceanic plataus and the motion of the Pacific plate with respect to the hotspots, AGU Trans. (EOS), v. 62, p. 1028.

Huchon, P. and LePichon, X., 1984, Sunda Strait and Central Sumatra fault, Geology, 12: 668-672.

Ji, X., and Coney, P.J., 1985, Accreted Terranes of China, in: Tectonostratigraphic Terranes of the Circum-Pacific Region, D.G. Howell (ed.), pp. 349-361.

Johnson, H. Ritchie, D., Gatliff, R., Cavill, J., Bulat, J., and Williamson, P., 1999, Aspects of the structure and evolution of the frontier deep water Porcupine Seabight Basin, AAPG Bulletin, vol. 83(8), p. 1320.

Kamp, P.J.J., 1986, The mid-Cenozoic Challenger Rift System of western New Zealand and its implications for the age of Alpine fault inception, Geological Society of America Bulletin, 97: 255-281. ,

Kimura, G., Miyashita, S., and Miyasaka, S., 1983, Collision tectonics in Hokkaido and Sakhalin, in Hashimoto, M. and Uyeda, S. (eds.), Accretion tectonics in the Circum-Pacific regions, pp. 123-134.

Klitgord, K.D., and Schouten, H., 1986, Plate kinematics of the central Atlantic, *in* Vogt, P.R. and Tucholke, B.E., eds., The Geology of North America: The Western North Atlantic Region, GSA DNAG vol. M., 351-378.

König, M., 1987, Geophysical data from the continental margin off Wilkes Land, Antarctica: implications for breakup and dispersal of Australia-Antarctica, *in* The Antarctic Continental Margin: Geology and Geophysics of Offshore Wiolkes Land, Earth Science Series, Eittreim, S.L. and Hampton, M.A. (editors), v. 5A, pp. 117 -1146, Circum Pacific Conference for Energy and Mineral Resources, Houston, TX.

Ladd, J.W., 1974, South Atlantic seafloor spreading and Caribbean tectonics, Ph.D. thesis, 251 pp., Columbia University, New York.

Lapouille, A., 1982, Etude des bassins marginaux fossiles de Sud-Ouest Pacifique: Bassin Nord-d'Entrecasteaux, bassin Nord-Loyaute, bassin Sud-Fidjien: Contribution a l'etude geodynamique du Sud-Ouest Pacifique (Study of the fossil marginal basins of the Southwest Pacific: North d'Entrecasteaux Basin, North Loyalty Basin, South Fiji Basin: Contribution to the geodynamique study of the Southwest Pacific), Trav. Doc. ORSTOM, 147:409-438.

Larson, R.L., and Ladd, J.W., 1973, Evidence for the opening of the South Atlantic in the Early Cretaceous, Nature, 246 (5430): 209-212.

Lawver, L.A., Gahagan, L.M., and Coffin, M.F., 1992, The development of paleoseaways around Antarctica, *in* J.P. Kennett and D.A. Warnke (editors), The Antarctic Paleoenvironment: A Perspective on Global Change, AGU Antarctic Research Series, vol. 56, pp. 7-30.

Lawver, L.A., Müller, R.D., Srivastava, S.P., and Roest, W., 1990, The Opening of the Arctic Ocean, *in* Geologic History of the Polar Oceans: Arctic Versus Antarctic, U. Bleil and J. Thiede (eds.), from the NATO Symposium (October, 1988) in Bremen, West Germany, pp. 29-62.

Lawver, L.A., and Scotese, C.R., 1987, A revised reconstruction of Gondwanaland, *in* McKenzie, G.D., ed., Gondwana Six: Structure, Tectonics, and Geophysics, AGU Geophysical Monograph 40 , 17-24.

Lee, T.-Y., and Lawver, L.A., 1992, Tectonic evolution of the South China Sea region, Journal of the Geological Society of China, 35: 353-388.

Lee, T.-Y., and Lawver, L.A., 1995, Cenozoic plate reconstruction of Southeast Asia, *in* T.W.C. Hilde and M.F.J. Flower (eds.), Southeast Asia Structure and Tectonics, Tectonophysics Special Issue, vol. 251, pp. 85-138, Elsevier, Amsterdam.

LePichon, X. and J.-M. Gaulier, 1988, The rotation of Arabia and the Levant fault system, Tectonophysics, 153: 271-294.

Li, S., Xiao, Y., Liou, D., Chen, Y., Ge, N., Zhang, Z., Sun, S., Cong, B., Zhang, R., Hart, S.R., and Wang, S., 1993, Collision of the North China and Yangtse Blocks and formation of coesite-bearing eclogites: Timing and processes, Chemical Geology, 109:89-111.

L.H., and Powell, C.M., 1995, South China in Rodinia: Part of the missing link between Australia-East Antarctica and Laurentia?, Geology, 23(5): 407-410.

Liou, J.G. and Maruyama, S., 1986, Post-Permian evolution of Asia, and some implications for Taiwan, Acta Geologica Taiwanica, No. 24, pp. 5-49.

Malahoff, A., Feden, R.H., and Fleming, H.S., 1982, Magnetic anomalies and tectonic fabric of marginal basins north of New Zealand, Journal of Geophysical Research, 87(B5):4109-4125.

Marks, K.M., Stock, J.M. and Quinn, K.J., 1999, Evolution of the Australian-Antarctic discordance since Miocene time, Journal of Geophysical Research, 104(B3): 4967-4981.

Martin, A.K., Goodlad, S.W., Hartnady, C.J.H., and du Plessis, A., 1982, Cretaceous paleopositions of the Falkland Plateau relative to southern Africa using Mesozoic seafloor spreading anomalies, Geophysical Journal of Royal Astronomy Society, 71: 567-579.

Marton, G., and Buffler, R.T., 1994, Jurassic reconstruction of the Gulf of Mexico Basin, International Geology Review, 36(Number): 545-586.

Masson, D.G., and Miles, P.R., 1984, Mesozoic seafloor spreading between Iberia, Europe and North America, Marine Geology, 56: 279-287.

Mayes, C.L., Lawver, L.A., and Sandwell, D.T., 1990, Tectonic history and new isochron chart of the South Pacific, Journal of Geophysical Research, 95(B6), pp. 8543-8567, 1990.

McCabe, R.E., Celays, M., Cole, J. Han, H.-C., Ohnstad, T., Paijitprapapon, V., and Thitipawarn, V., 1988, Extension tectonics: The Neogene opening of the north-south trending basins of Central Thailand, Journal of Geophysical Research, 93: 11,899-11,910.

McKenzie, C.P., Molnar, P., and Davies, D., 1970, Plate tectonics of the Red Sea and East Africa, Nature, 226: 243-248.

Meert, J.G., and Vandervoo, R., 1994, The Neoproterozoic (1000-540 Ma) Glacial Intervals - No More Snowball Earth?, Earth and Planetary Science Letters, 123(1-4): 1-13.

Meert, J.G., Van der Voo, R., and Payne, T.W., 1994, Paleomagnetism of the Catoctin volcanic province: A new Vendian-Cambrian apparent polar wander path for North America, Journal of Geophysical Research, 99(B3): 4625-4641.

Miki, M., Matsuda, T., and Otofuji, Y., 1990, Opening of the Okinawa Trough: paleomagnetic evidence from the South Ryukyu Arc, Tectonophysics, 175: 335-347.

Mitchell, A.H.G., Hernandez, F. and Dela Cruz, A.P., 1986, Cenozoic evolution of the Philippine Archipelago, Journal of Southeast Asian Earth Sciences, 1(1): 3-22.

Molnar, P., Atwater, T., Mammerickx, J., and Smith, S.M., 1975, Magnetic anomalies, bathymetry and the tectonic evolution of the South Pacific since the Late Cretaceous, Geophysical Journal of Royal Astronomy Society, 40: 383-420.

Molnar, P., Pardo-Casas, F., and Stock, J., 1988, The Cenozoic and Late Cretaceous evolution of the Indian Ocean basin: uncertainties in the reconstructed positions of the Indian, African and Antarctic plates, Basin Research, 1: 23-40.

Müller, R.D., Royer, J.-Y., Cande, S.C., Roest, W.R., and Maschenkov, S., 1999, New constraints on the Late Cretaceous/Tertiary plate tectonic evolution of the Caribbean, *in* Caribbean Basins, P. Mann (editor), Sedimentary Basins of the World series, Elsevier Science B.V., Amsterdam, The Netherlands, 4:33-59.

Müller, R.D., Royer, J.-Y., and Lawver, L.A., 1993, Revised plate motions relative to the hotspots from combined Atlantic and Indian Ocean hotspot tracks, Geology, vol. 21, pp. 275-278.

Müller, R.D., Sandwell, D.T., Tucholke, B.E., Sclater, J.G., and Shaw, P.R., 1990, Depth to basement and geoid expression of the Kane Fracture Zone: a comparison, Marine Geophysical Researches, 13: 105-129.

Mutter, J.C., and Cande, S.C., 1983, The early opening between Broken Ridge and Kerguelen Plateau, Earth and Planetary Science Letters, 65(2): 369-376.

Niocaill, C.M., and Smethurst, M.A., 1994, Palaeozoic palaeogeography of Laurentia and its margins: A reassessment of palaeomagnetic data, Geophysical Journal International, 116:715-725.

Nockleberg, W.J., Parfenov, L.M., Monger, J.W.H., Norton, I.O., Khanchuk, A.I., Stone, d.B., Scholl, D.W., and Fujita, K., 1998, Phanerozoic Tectonic Evolution of the Circum-North Pacific. U.S. Department of the Interior, U.S. Geologic Survey, Open-file Report, 98-754; 125 pp.

Norton, I.O. and Sclater, J.G., 1979, A model for the evolution of the Indian Ocean and the breakup of Gondwanaland, Journal of Geophysical Research, 84: 6803-6830.

Nunns, A.G., 1983, in Bott, M., Saxov, S., Talwani, M. and Thiede, J., eds., Structure and Development of the Greenland - Scotland Ridge, pp. 11-30.

Nürnberg, D. and Müller, R.D., 1991, The tectonic evolution of the South Atlantic from Late Jurassic to present, Tectonophysics, 191: 27-53.

0tofuji, Y., Sasajima, S., Nishimura, S., Dharma, A., and Hehuwat, F., 1981, Paleomagnetic evidence for clockwise rotation of the northern arm of Sulawesi, Indonesia, Earth and Planetary Science Letters, 54: 272-280.

Otsuki, K. and Ehiro, M., 1979, Major strike-slip faults and their bearing on spreading in the Japan Sea, in Uyeda, S., Murphy, R.W., and Kobayashi, K. (eds.), Geodynamics of the Western Pacific, Proceedings of the International Conference on Geodynamics of the Westrn Pacific-Indonesian Region, March 1978, Tokyo, Advances in Earth and Planetary Sciences, vol. 6, pp. 537-555.

Panuska, B.C., and Stone, D.B., 1985, Latitudinal motion of Wrangellia and Alexander terranes and the southern Alaska Superterrane, *in* D.G. Howell (eds.), Tectonostratigraphic terranes of the circum-Pacific region, Circum-Pacific Council for Energy and Mineral Resources Earth Science Series, 1: 109-120, Houston.

Park, J.K., Norris, D.K., and Larochelle, A., 1989, Paleomagnetism and the origin of the Mackenzie arc of northwestern Canada, Canadian Journal of Earth Sciences, 26:123-140.

Patriat, P., 1983, Evolution du système de dorsales de l'Ocean Indien, These Doctorat d'Etat, Universite Pierre et Marie Curie, Paris.

Patriat, P., 1987, Reconstitution de l'évolution du systeme de dorsales de l'océan Indien par les méthodes de la cinématique des plagues, Territoires des Terres Australes et Antarctiques Françaises, Paris.

Pflaker, G., and Berg, H.D., 1994, overview of the geology and tectonic evolution of Alaska, *in* G. Pflaker and H.C. Berg (eds.), The Geology of Alaska, G-1: 989-1021, Geological Society of America, Boulder, CO.

Powell, C.M., Roots, S.R., and Veevers, J.J., 1988, Pre-breakup continental extension in East Gondwanaland and the early opening of the eastern Indian Ocean, Tectonophysics, v. 155: 261-283.

Rabinowitz, P.D., and LaBrecque, J., 1979, The Mesozoic South Atlantic Ocean and evolution of its continental margins, Journal of Geophysical Research, 84(B11): 5973-6002.

Roest, 1987, Seafloor Spreading Pattern of the North Atlantic between 10∞ and 40∞N, Geologica Ultraiectina, Mededelingen van het Instituut voor Aardwetenschappen der Riksuniversiteit te Utrecht, v. 40, 121 pp.

Roest, W.R., Dañobeitia, J.J. Verhoef, J. and Collette, B.J., 1991, Magnetic anomalies in the Canary Basin and the Mesozoic evolution of the Central North Atlantic, Marine Geophysical Researches, 14(1): 1-24.

Roest, W.R. and Srivastava, S.P., 1989, Seafloor spreading in the Labrador Sea: a new reconstruction, Geology, 17: 1000-1004.

Rosa, J.W.C., and Molnar, P., 1988, Uncertainties in reconstructions of the Pacific, Farallon, Vancouver and Kula plates and constrains on the rigidity of the Pacific and Farallon (and Vancouver) plates between 72 and 35 Ma, Journal of Geophysical Research, 93(B4): 2997-3008.

Ross, M.I., and Scotese, C.R., 1988, A hierarchical tectonic model of the Gulf of Mexico and Caribbean region, Tectonophysics, 155: 139-168.

Royer, J.-Y. and Chang, T., 1991, Evidence for relative motions between the Indian and Australian plates during the last 20 Myr from plate tectonic reconstructions: implications for the deformation of the Indo-Australian plate, Journal of Geophysical Research, 96(B7): 11779-11802.

Royer, J.Y., Gordon, R.G., DeMets, C., and Vogt, P.R., 1997, New limits on the motion between India and Australia since chron 5 (11 Ma) and implications for lithospheric deformation in the equatorial Indian Ocean, Geophysical Journal International, 129(1): 41.

Royer, J.-Y., Patriat, P., Bergh, H., and Scotese, C., 1988, Evolution of the southwest Indian Ridge from the Late Cretaceous (anomaly 34) to the Middle Eocene (anomaly 20), Tectonophysics, 155: 235-260.

Royer, J.Y., and Rollet, N., 1997, Plate-tectonic setting of the Tasmanian region, Australian Journal of Earth Sciences, 44(5): 543-560

Royer, J.-Y. and Sandwell, D.T., 1989, Evolution of the Eastern Indian Ocean since the Late Cretaceous: Constraints from Geosat altimetry, Journal of Geophysical Research, 94(B10): 13,755-13,782.

Samuel, M.A., Harbury, N., Bott, R., and Thabet, A.M., 1997, Field observations from the Socotran platform: their interpretation and correlation to Southern Oman, Marine and Petroleum Geology, 14(6): 661-673.

Sclater, J.G., Hellinger, S., and Tapscott, C., 1977, The paleobathymetry of the Atlantic Ocean from the Jurassic to the present, Journal Geology, 85: 509-552.

Scotese, C.R. and McKerrow, W.S., 1990, Revised world maps and introduction, *in* McKerrow, W.S. and Scotese, C.R. (editors), Palaeozoic Palaeogeography and Biogeography, Geological Society Memoir No. 12, published by The Geological Society, London, pp. 1-21.

Shaw, R.D., 1979. On the evolution of the Tasman Sea and adjacent continental margins. Unpublished Ph.D. thesis, University of Sydney, Australia, 312 pp.

Shaw, P.R. and Cande, S.C., 1990, High-resolution inversion for South Atlantic plate kinematics using joint altimeter and magnetic anomaly data, Journal of Geophysical Research, 95: 2625-2644.

Situmorang, B., 1982, The formation of the Makassar Basin as determined from subsidence curves, Proceedings of the Indonesian Petroleum Association 11th Annual Convention, pp. 83-107.

Skogseid, 1993, unpublished poles for the Jan Mayen Plateau.

Smethurst, M.A., Khramov, A.N., and Torsvik, T.H., 1998, The Neoproterozoic and Palaeozoic palaeomagnetic data for the Siberian Platform: From Rodinia to Pangea , Earth Sci Rev , 43 (1-2): 1-24.

Smith, A.B., 1988, Late Palaeozoic biogeography of East Asia and palaeontological constraints on plate tectonic reconstructions, Phil. Trans. R. Soc. Lond., A326: 189-227.

Srivastava, S.P. and Roest, W.R., 1989, Seafloor spreading history II-IV, in East Coast Basin Atlas Series: Labrador Sea, J.S. Bell (co-ordinator). Atlantic Geoscience Centre, Geologic Survey of Canada, Map sheets L17-2 - L17-6.

Srivastava, S.P., Roest, W.R., Kovacs, L.C., Oakey, G., Lévesque, S., Verhoef, J., and Macnab, R., 1990, Motion of Iberia since the Late Jurassic: results from detailed aeromagnetic measurements in the Newfoundland Basin, Tectonophysics, 184: 229-260.

Srivastava, S.P., and Tapscott, C.R., 1986, Plate kinematics of the North Atlantic, *in* Tucholke, B.E., and Vogt, P.R., eds., The Geology of North America: The Western Atlantic Region, DNAG Series, vol. M, Geol. Soc. of America,379-404.

Stock, J., and Molnar, P., 1987, Revised history of early Tertiary plate motion in the south-west Pacific, Nature, 325: 495-499.

Symons, D.T.A., and Chiasson, A.D., 1990, Paleomagnetism of the Callander complex and the Cambrian apparent polar wander path for North America, Canadian Journal of Earth Science, 28:355-363.

Talwani, M., and Reif, C., 1998, Laxmi Ridge - A continental sliver in the Arabian Sea, Marine Geophysical Researches, 20:259-271.

Tapponnier, P., Lacassin, R., Leloup, P.H., Schärer, U., Zhou, D., Wu, H., Liu, X., Ji, S., Zhang, L., and Zhong, J., 1990, The Ailao Shan/Red River metamorphic belt: Tertiary left-lateral shear between Indochina and South China, Nature, 343: 431-437.

Tebbens, S. F. and Cande, S. C., 1997, Southeast Pacific tectonic evolution from early Oligocene to present, Journal of Geophysical Research, 102 (6), p. 12061-12084.

Tikku, A.A., 1998. Late Cretaceous to Early Tertiary Tectonics of the Southeast Indian ocean, Ph.D. Dissertation, University of California, San Diego. (rotation poles from her thesis for A20o, A21y, A24o and A27y).

Tikku, A.A. and Cande, S.C., 1999, The oldest magnetic anomalies in the Australian-Antarctic Basin: Are they isochrons?, Journal of Geophysical Research, vol. 104(B1): 661-677.

Torsvik, T.H., Smethurst, M.A., Van der Voo, R., Trench, A., Abrahamsen, N., and Halvorsen, E., 1992, Baltica: A synopsis of Vendian-Permian palaeomagnetic data and their palaeotectonic implications, Earth Science Reviews, 33(2): 133-152.

Torsvik, T.H., Tait, J., Moralev, V.M., McKerrow, W.S., Sturt, B.A., and Roberts, D., 1995, Ordovician palaeogeography of Siberia and adjacent continents, Journal of the Geological Society, 152(Part 2): 279-287.

Trench, A., and Torsvik, T.H., 1991, A revised Palaeozoic apparent polar wander path for southern Britain (eastern Avalonia), Geophysical Journal International, 104: 227-233.

Van der Pluijm, B.A., Vandervoo, R., Potts, S.S., and Stamatakos, J., 1993, Early Silurian paleolatitude for central Newfoundland from paleomagnetism of the Wigwam Formation - Discussion, Canadian Journal of Earth Sciences, 30(3): 644-645.

van der Pluijm, B.A., van der Voo, R., and Torsvik, T.H., 1995, Convergence and subduction at the Ordovician margin of laurentia, *in* J.P. Hibbard, C.R. van Staal and P.A. Cawood (eds.), Current perspectives in the Appalachian-Caledonian orogen, Special Paper, 41: 127-136, Geological Association of Canada.

Van der Voo, R., 1993, Paleomagnetism of the Atlantic, Tethys, and Iapetus Oceans, Cambridge University Press, Cambridge, 411 p.

Veevers, J.J., 1986, Breakup of Australia and Antarctica estimated as mid-Cretaceous (95±5 Ma) from magnetic and seismic data at the continental margin, Earth and Planetary Science Letters, 77: 91-99.

Veevers & Eittreim 1988

Veevers, J.J., Tayton, J.W., and Johnson, B.D., 1985, Prominent magnetic anomaly along the continent-ocean boundary between the northwestern margin of Australia (Exmouth and Scott plateaus) and the Argo abyssal plain, Earth and Planetary Science Letters, 72: 415-426.

Wang, X., Yan, J., and Lin, J., 1989, The inverted structure and its significance in petroleum geology, Earth Sci. JOURNALof China Univ. of Geosciences, 14: 101-108 (in Chinese with English abstract).

Weissel, J.K. and Hayes, D.E., 1977, Evolution of the Tasman Sea reappraised, Earth and Planetary Science Letters, 36: 77-84.

Weissel, J.K., Hayes, D.E., and Herron, E.M., 1977, Plate tectonics synthesis, the displacements between Australia, New Zealand, and Antarctica since the Late Cretaceous, Marine Geology, 25: 231-277.

Wilson, D.S., 1988, Tectonic history of the Juan de Fuca Ridge over the last 40 million years, Journal of Geophysical Research, 33: 11,863-11,876.

Wilson, D.S., and Hey, R.N., 1995, History of rift propagation and magnetization intensity for the Cocos-Nazca spreading center, Journal of Geophysical Research - Solid Earth, 100(B6): 10041-10056.

Yan, C.-Y., and Kroenke, L.W., 1993, A plate tectonic reconstruction of the Southwest Pacific, 0-100 Ma, *in* W.H. Berger, L.W. Kroenke, L.A. Mayer and et al. (eds.), Proceedings of the Ocean Drilling Program, Scientific Results, 130: 697-709, Ocean Drilling Program, College Station, Texas.

Yin, A., and Nie, S., 1993, An indentation model for the North and South China collision and the development of the Tan-Lu and Honam fault systems, eastern Asia, Tectonics, 12(4): 801-813.

Zhao, X., Coe, R.S., Zhou, Y., Wu, H., and Wang, J., 1990, New paleomagnetic results from northern China: Collision and suturing with Siberia and Kazakhstan, Tectonophysics, 181:43-81.

Ziegler, P.A. and van Hoorn, B., 1989, Evolution of North Sea rift system, in Tankard, A.J. and Balkwill, H.R. (eds.), Extensional Tectonics and Stratigraphy of the North Atlantic Margins, AAPG Memoir 46, Tulsa, OK, p. 471-500.

Ziegler, A.M., Scotese, C.R., and Barrett, S.F., 1983, Mesozoic and Cenozoic paleogeographic maps, *in* Tidal Friction and the Earth's Rotation II, Broche/Sundermann, eds., Springer-Verlag, Berlin, pp. 240 - 252.

References for digital data

Geologic map of Antarctica, 1970, scale 1:5,000,000 at latitude 71°S, The American Geographical Society, compiled by Campbell Craddock, New York, New York.

Index map to principal geographic features and locations discussed in chapter B, Antarctica. Base map modified from Sheet 4.1(1:10,000,000) of "Antarctica: Glaciological and Geophysical Folio", Scott Polar Research Institute, Cambridge (Drewry, 1983). Professional paper 1386-B, plate 1, Dept. of the Interior U.S. Gological Survey.

Tectonic map of Australia and New Guinea, 1971, scale 1:5,000,000, Geological Society of Australia, Sydney, Australia.

Total sedimentary isopach map, offshore east Asia, 1991, Working group on resource assessment, committee for co-ordination of joint prospecting for mineral resources in Asian offshore areas (CCOP), scale 1:4,000,000.

Abbott, W.O., 1990, Maui Field, *in* E.A. Beaumont and N.H. Foster (eds.), Structural Traps I: Tectonic fold traps, II, pp. 1-25, American Association of Petroleum Geologists, Tulsa

Ambeh, W., Saleh, J., Calais, E., DeMets, C., Dixon, T., Freymueller, J.T., Jansma, P., Kellog, J.N., Mora, H., Lundgren, P., Mann, P., and Weber, J., 1994, GPS networks in the Caribbean, 1994 AGU Fall Meeting Supplement (EOS, Transactions), 75: 612.

Atwater, T., 1990, Plate tectonic history of the northeast Pacific and western North America, *in* The Eastern Pacific Ocean and Hawaii, Winterer, E.L., Hussong, D.M., and Decker, R.W. (editors), Decade of North American Geology, vol. N, pp. 21-72.

Atwater, T. and Severinghaus, J., 1990, Tectonic maps of the northeast Pacific, *in* The Eastern Pacific Ocean and Hawaii, Winterer, E.L., Hussong, D.M., and Decker, R.W. (editors), Decade of North American Geology, vol. N, pp. 15-20.

Auzende, J.-M., Lafoy, Y., and Marsset, B., 1988, Recent geodynamic evolution of the north Fiji basin (southwest Pacific), Geology, 16: 925-929.

Backman, J., Duncan, R.A., et al., 1988, Leg 115, Proceedings of the Ocean Drilling Program, Initial Reports, College Station, TX.

Barckhausen, U., Ranero, C.R., von Huene, R., Cande, S.C., and Roeser, H.A., 2001 Revised tectonic boundaries in the Cocos plate off Costa Rica: Implications for the segmentation of the convergent margin and for plate tectonic models, Journal of Geophysical Research - Solid Earth, 106 (9), p. 19,207-19,220.

Barker, P.F., 1982, The Cenozoic subduction history of the Pacific margin of the Antarctic Peninsula: ridge crest-trench interactions, Journal of Geological Society of London, 139: 787-801.

Barker, P.F., and Burrell, J., 1977, The opening of the Drake Passage, Marine Geology, 25:15-34.

Barker, P.F. and Lawver, L.A., 1988, South American-Antarctic plate motion over the past 50Myr, and the evolution of the South American-Antarctic Ridge, Geophysical Journal, 94(3): 377-386.

Barron, J., Larsen, B., et al., 1989, Leg 119, Proceedings of the Ocean Drilling Program, Initial Reports, College Station, TX.

Beatty, J.K., Petersen, C.C., and Chaikin, A., The New Solar System, Sky Publishing Corporation, Cambridge, Massachusetts, pp. 396-398.

Behrendt, J.C., and Wotorson, C.S., 1970, Aeromagnetic and gravity investigations of the coastal area and continental shelf of Liberia, West Africa, and their relation to continental drift, Geological Society of America Bulletin, 81:3563-3574.

Beikman, H.M., 1980, Geologic Map of Alaska, Geological Society of America, scale 1:2,500,000.

Berberian, M., 1981, Active faulting and tectonics of Iran, *in* H.K. Gupta and F.M. Delany (eds.), Zagros, Hindu Kush, Himalaya Geodynamic Evolution, 3, pp. 33-69, American Geophysical Union, Washington, D.C.

Bergh, H.W., pers. comm.

Bergh, H.W., 1987, Underlying fracture zone nature of Astrid Ridge off Antarctica's Queen Maud Land, Journal of Geophysical Research, 92: 475-484.

Bergh, H.W., and Barrett, D.M., 1980, Agulhas Basin magnetic bight, Nature, 287: 591-595.

Bergh, H.W. and Norton, I.O., 1976, Prince Edward fracture zone and the evolution of the Mozambique Basin, Journal of Geophysical Research, 81: 5221-5239.

Besairie, H., 1964, Geological Map of Madagascar, Serv. Géol. Madagascar, 3 sheets.

Bhattacharya, G.C., Chaubey, A.K., Murty, G.P.S., Srinivas, K., Sarma, K.V.L.N.S., Subrahmanyam, V., and Krishna, K.S., 1994, Evidence for Seafloor Spreading in the Laxmi Basin, Northeastern Arabian Sea, Earth and Planetary Science Letters, 125(1-4): 211-220.

Biddle, K.T., 1991, The Los Angeles Basin: an overview, *in* K.T. Biddle (eds.), Active Margin Basins, 52, pp. 5-24, American Association of Petroleum Geologists, Tulsa, OK.

Bois, C., 1993, Initiation and Evolution of the Oligo-Miocene Rift Basins of Southwestern Europe - Contribution of Deep Seismic Reflection Profiling, Tectonophysics, 226: 227-252.

Bordet, P., Colchen, M., Le Fort, P., and Pecher, A., 1981, The geodynamic evolution of the Himalaya - ten years of research in central Nepal Himalaya and some other regions, *in* H.K. Gupta and F.M. Delany (eds.), Zagros, Hindu Kush, Himalaya Geodynamic Evolution, 3, pp. 149-168, American Geophysical Union, Washington, D.C.

Borrello, A.V., 1978, Mapa Geotectonico de la Republica Argentina, Servicio Geologico Nacional, Buenos Aires, sheets 1 and 2 [Gastre Fault]; scale 1:2,500,000.

Bott, M.N.P., 1987, The continental margin of central East Greenland in relation to North Atlantic plate tectonic evolution, Journal of Geological Society of London, 144: 561-568.

Bowland, C.L. and Rosencrantz, E., 1988, Upper crustal structure of the western Colombian Basin, Caribbean Sea, Geological Society of America Bulletin, 100, 534-546.

Bradshaw, J.D., 1997, Terrane Dynamics 1997 Guidebook for Field Excursions A, B, & C, University of Canterbury, Christchurch, New Zealand. Figure 1, page III.

British Antarctic Survey, 1985, Tectonic Map of the Scotia Arc, Scale 1:3,000,000. BAS (Misc.) 3. Cambridge, British Antarctic Survey.

British Oceanographic Data Centre (Proudman Oceanographic Laboratory), 1997, General Bathymetric Chart of the Oceans (GEBCO) Digital Atlas, Bidston Observatory, Merseyside L43 7RA, UK (cdrom).

Brozena, J.M., Childers, V.A., Faleide, J.I., Myrhe, A., and Lawver, L.A., 1999, An aerogeophysical study of the Eurasia Basin, Supplement to Eos, Transactions, 1999 Fall Meeting American Geophysical Union, v. 80, n. 46, p. F992-993.

Brozena, J.M., Childers, V.A., and Lawver, L.A., 2001, unpublished magnetic anomaly picks in the Eurasian Basin based on aerogeophysical data.

Buffler, R., Shaub., J. Huerta, R., Ibrahim, A. and Watkins, D., 1981, A model for the early evolution of the Gulf of Mexico Basin, Oceanol. Acta, C3, pp. 129-136.

Burkart, B., 1978, Offset across the Polochic fault of Guatemala and Chiapas, Mexico, Geology, 6:328-332.

Burns, R.E., Andrews, J.E., et al., 1973, Initial Reports of the Deep Sea Drilling Project, Leg XXI, Washington (U.S. Govt. Printing Office).

Calais, E., and Mercier de Lepinay, B., 1991, From transtension to transpression along the northern Caribbean plate boundary off Cuba: Implications for the Recent motion of the Caribbean plate, Tectonophysics, 186:329-350.

Calais, E., and de Lépinay, B.M., 1995, Strike-slip tectonic processes in the northern Caribbean between Cuba and Hispaniola (Windward Passage), Marine Geophysical Researches, 17:63-95.

Canadian Hydrographic Service, 1981, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, International Hydrographic Organization/Intergovernmental Oceanic Commission/Canadian Hydrographic Service, Ottawa, Ontario.

Cande, S.C., and Haxby, W.F., 1991, Eocene propagating rifts in the southwest Pacific and their conjugate features on the Nazca Plate, Journal of Geophysical Research, 96(B12): 19609-19622.

Cande, S.C., Herron, E.M., and Hall, B.R., 1982, The early Cenozoic history of the southeast Pacific, Earth and Planetary Science Letters, 57: 47-62.

Cande, S.C., and Kent, D.V., 1995, Revised calibration of the geomagnetic polarity timescale for the Late Cretaceous and Cenozoic, Journal of Geophysical Research, 100(B4): 6093-6095.

Cande, S., LaBrecque, J.L., and Haxby, W.B., 1988, Plate kinematics of the South Atlantic: Chron 34 to present, Journal of Geophysical Research, 93(B11): 13,479-13,492.

Cande, S.C., LaBrecque, J.L., Larson, R.L., Pitman III, W.C., Golovchenko, X., and Haxby, W.F., 1989, Magnetic lineations of the world's ocean basins, scale 1:27,400,000; Mercator projection, American Association of Petroleum Geologists, Tulsa, OK.

Cande, S.C., Larson, R.L., and LaBrecque, J.L., 1978,Magnetic lineations in the Pacific Jurassic Quiet Zone, Earth And Planetary Science Letters, 41: 434-440.

Cande, S.C., Raymond, C.A., Stock, J., and Haxby, W.F., 1995, Geophysics of the Pitman fracture zone and Pacific-Antarctic plate motions during the Cenozoic, Science, 270(5238): 947-953.

Caress, D.W., Menard, H.W., and Hey, R.N., 1988, Eocene reorganization of the Pacific-Farallon Spreading Center north of the Mendocino Fracture Zone, Journal of Geophysical Research, 93: 2813-2838.

Carmalt, S.W. and St. John, B., 1986, Giant oil and gas fields, *in* Halbouty, M. T. (editor), Future Petroleum Provinces of the World, AAPG Memoir 40, pp. 11-53.

Carozzi, A.V., and Palomino, J.R., 1993, The Talara Forearc Basin, NW Peru - Depositional Models of Oil-Producing Cenozoic Clastic Systems, Journal of Petroleum Geology, 16: 5-32.

Carter, R.M., 1988, Plate boundary tectonics, global sea-level changes and the development of the eastern South Island continental margin, New Zealand, Southwest Pacific, Marine and Petroleum Geology, 5: 90-107.

Case, J. and Holcombe, T., 1980, Geologic-tectonic map of the Caribbean region, scale 1:2,500,000.

Chen, Z., Li, Z.-H., Powell, C.M., and Balme, B.E., 1994, An Early Carboniferous paleomagnetic pole for Gondwanaland: new results from the Mount Eclipse Sandstone in the Ngalia Basin, central Australia, Journal of Geophysical Research, 99: 2909-2924.

Christofel, D.A. and Falconer, R.F., 1972, Marine magnetic measurements in the southwest Pacific Ocean and the identification of new tectonic features, in Antarctic Oceanology II - The Antarctic - New Zealand Sector, D.E. Hayes (ed.), Am. Geophys. Union., Ant. Res. Ser., 19: 197-209.

Chung, S.-L., and Jahn, B., 1995, Plume-lithosphere interaction in generation of the Emeishan flood basalts at the Permian-Triassic boundary, Geology, 23(10): 889-892.

Clarke Jr., S.H., 1992, Geology of teh Eel River Basin and adjacent region: implications for Late Cenozoic tectonics of teh southern Cascadia subduction zone and Mendocino Triple Junction, American Association of Petroleum Geologists Bulletin, 76: 199-224.

Cochran, J. R., 1981, The Gulf of Aden: Structure and evolution of a young ocean basin and continental margin, Journal of Geophysical Research, 86: 263-287.

Cochran, J.R., 1988, The Somali Basin, Chain Ridge and the origin of the northern Somali Basin gravity and geoid low, Journal of Geophysical Research, 93(B10): 11,985-12,008.

Cochran, J.R., Stow, D.A.V., et al., 1989, Leg 116, Proceedings of the Ocean Drilling Program, Initial Reports, College Station, TX.

Coffin, M.F., Davies, M.L., and Haxby, W.F., 1986, Structure of the Kerguelen Plateau province from Seasat altimetry and seismic reflection data, Nature, 324: 134-136.

Coffin, M.F. and Eldholm, O., 1993, Scratching the surface: estimating dimensions of large igneous provinces, Geology, 21:515-518.

Coffin, M.F. and Eldholm, O., in prep., Chapman paper.

Coffin, M.F. and Rabinowitz, P.D., 1992, The Mesozoic East African and Madagascan conjugate continental margins, *in* Geology and Geophysics of Continental Margins, edited by J.S. Watkins, F. Zhiqiang, and K.J. McMillen, American Association of Petroleum Geologists Memoir 53, pp. 207-246 (after Rabinowitz et al. 1983).

Condie, K.C. and Rosen, O.M., 1994, Laurentia-Siberia connection revisited, Geology, v. 22, pp. 168-170.

Cooper, A.K., Davey, F.J., and Hinz, K., 1991, Crustal extension and origin of sedimentary basins beneath Ross Sea and Ross Ice Shelf, antarctica, *in* M.R.A. Thomson, J.A. Crame, and J.W. Thomson (editors), Geological Evolution of Antarctica, Proceedings of the Fifth International Symposium on Antarctic Earth Sciences held at Robinson College, Cambridge, 23-28 August 1987, Cambridge University Press, pp. 285-291.

Coster, P.W., Lawrence, S.R., and Fortes, G., 1989, Mozambique: a new geological framework for hydrocarbons exploration, Journal of Petroleum Geology, v. 12(2): 205-230.

Coulson, F.I., and Vedder, J.G., 1986, Geology of the central and western Solomon Islands, *in* J.G. Veder, K.S. Pound and S.Q. Boundy (eds.), Geology and Offshore Resources of Pacific Island Arcs - Central and Western Solomon Islands, Science Series, 4: 59-97, Circum-Pacific Council for Energy and Mineral Resources, Houston, TX.

Cox, K.G., 1988. The Karoo Province. In Macdougall, J.D., ed., Continental Flood Basalts: Dordrecht, The Netherlands (Kluwer), 239-271.

Crane, R.C., 1987, Arctic reconstruction from an Alaskan viewpoint, in Tailleur, I.L. and Weimer, P. (eds.), Alaskan North Slope Geology, Society of Economic Paleontologists and Mineralogists, Pacific Section, Los Angeles.

Cuban Gulf Oil Co., 1956, Regional Geologic Map of Cuba; air photographic base; scale approximately 1:100,000; sheets B6, C6, and C7.

Currie, R.G., Seeman, D.A., and Riddihough, R.P., 1982, Total field magnetic anomaly offshore British Columbia, Geological Survey of Canada Open-File Report 828, scale 1:1,000,000.

Dalziel, I.W.D., 1998, personal communication. Based on Pankhurst, R.J., Weaver, S.D., Bradshaw, J.D., Storey, B.C., and Ireland, T.R., 1998, Geochronology and geochemistry of pre-Jurassic superterranes in Marie Byrd Land, Antarctica, Journal of Geophysical Research - Solid Earth, 103(B2): 2529-2547.

Dalziel, I.W.D., Dalla Salda, L.H., and Gahagan, L.M., 1994, Paleozoic Laurentia-Gondwana interaction and the origin of the Appalachian Andean mountain system, Geological Society of American Bulletin, vol. 106, pp. 243-252.

Davies, T.A., Luyendyk, B.P., et al., 1974, Leg XXVI, Initial Reports of the Deep Sea Drilling Project, Washington (U.S. Govt. Printing Office).

De Caritat, P., and Braun, J., 1992, Cyclic development of sedimentary basins at convergent plate margins - 1. structural and tectono-thermal evolution of some Gondwana basins of eastern Australia, Journal of Geodynamics, 16: 241-282. , Devono-Carboniferous Drummond Basin; Galilee Basin; Bowen Basin: Eromanga/Surat/Carpentaria Basin

Defense Mapping Agency Hydrographic/Topographic Center, 1980, Shetland Islands: Deception Island to King George Island, map, mercator projection, scale: 1:200,000 at latitude 65°.

DeMets, C., and Traylen, S., 2000, Motion of the Rivera Plate since 10 Ma relative to the Pacific and North American plates and the mantle, *in* J.M. Stock and J. Urrutia Fucugauchi (eds.), The influence of plate interaction on post-Laramide magmatism and tectonics in Mexico, Tectonophysics, 318: 119-159.

DePaor, D.G., Bradley, D.C., Eisenstadt, G., and Phillips, S.M., 1989, The Arctic Eurekan orogen: A most unusual fold-and-thrust belt, Geol. Soc. Am. Bull., 101: 952-967.

De Ros, L.F., Anjos, S.M.C., and Morad, S., 1994, Authigenesis of amphibole and its relationship to the diagenetic evolution of Lower Cretaceous sandstones of the Potiguar rift basin, northeastern Brazil, Sedimentary Geology, 88: 253-266.

DeVries Klein, G., Kobayashi, K., et al., 1980, Initial Reports of the Deep Sea Drilling Project, Leg LVIII, Washington (U.S. Govt. Printing Office).

Dickin, A.P., 1988. The North Atlantic Tertiary Province, in Macdougall, J.D., ed., Continental Flood Basalts, Kluwer, Dordrecht, Netherlands, 111-149.

Dillon, W.P., Austin, J.A.J., Scanlon, K.M., Edgar, N.T., and Parson, L.M., 1992, Accretionary margin of north-western Hispaniola: Morphology, structure, and development of the northern Caribbean plate boundary, Marine and Petroleum Geology, 9:70-88.

Dillon, W.P., Edgar, N.T., Scanlon, K.M., and Coleman, D.F., 1996, A review of the tectonic problems of the strike-slip northern boundary of the Caribbean Plate and examination by GLORIA, *in* J.V. Gardner, M.E. Field and D.C. Twichell (eds.), Geology of the United States' seafloor; the view from GLORIA, 135-164, Cambridge University Press, Cambridge, United Kingdom.

Dolan, J.F., Mullins, H.T., and Wald, D.J., 1998, Active tectonics of the north-central Caribbean: Oblique collision, strain partitiohning, and opposing subducted slabs, *in* J.F. Dolan and P. Mann (eds.), Active Strike-Slip and Collisional Tectonics of the Northern Caribbean Plate Boundary Zone, Special Papers, 326: 1-61, Geological Society of America, Boulder, CO.

Donnelly, T.W., Horne, G.S., Finch, R.C., and Lopez-Ramos, E., 1990, Northern Central America; The Maya and Chortis blocks, *in* G. Dengo and J.E. Case (eds.), The Caribbean Region, The Geology of North America, A: 371-396, Geological Society of America, Fig. 4.

Drachev, S.S., Savostin, L.A., Groshev, V.G., and Bruni, I.E., 1998, Structure and geology of the continental shelf of the Laptev sea, eastern Russian Arctic, Tectonophysics, 298(4): 357+.

Draper, G., Lewis, J.F., and Gutierrez-Alonso, G., 1999, Geological Map of Hispaniola, from the web page: http://www.fiu.edu/orgs/caribgeol/jamaica.html
(Based on: Draper, G., Mann, P., and Lewis, J.F., 1994, Hispaniola, *in* S.K. Donovan and T.A. Jackson (eds.), Caribbean Geology: An Introduction, 129-150, University of the West Indies Publisher's Association, Kingston, Jamaica.)

Drewry, D.J. and Jordan, S.R., 1983, Bedrock surface of Antarctica, sheet 3 of Antarctica: Glaciological and Geophysical Folio, Drewry, D.J. (ed.), Scott Polar Research Institute, Cambridge.

Dunbar, J. and Sawyer, D., 1986, Crust extension within the Gulf of Mexico: Implications for the breakup of Western Pangea, abs. from 1986 Geodynamics Symposium.

Dunbar, J.A. and Sawyer, D.S., 1989, Patterns of continental extension along the conjugate margins of the Central and North Atlantic oceans and Labrador Sea, Tectonics, 8: 1059-1077.

Dyment, J., 1991, Structure et évolution de la lithosphere océanique dans l'océan Indien: apport des anomalies magnétique, Ph.D. thesis, Universite Louis Pasteur de Strasbourg, Ecole et Observatoire de Physique du Globe, p. 201.

Eldholm, O. and Coffin, M.F., Large igneous provinces and plate tectonics (submitted to AGU Special Volume, "The History and Dynamics of Global Plate Motions," edited by M. Richards, R. Gordon and R. Van der Hilst).

Eldhom, O. and Thiede, J., 1987ummary and preliminary conclusions, ODP Leg 104: Proceedings, Ocean Drilling Program Initial Reports, Part A, pp. 751-771.

Eldholm, O., Faleide, J.I., and Myrhe, A.M., 1987, Continent-ocean transition at the western Barents Sea/Svalbard continental margin, Geology, 15: 1118-1122.

Elvers, D., Potter, K., seidel, D., and Morley, J., 1972, IDOE 1971 survey: Washington, D.C., National Oceanographic and Atmospheric Administration, National Ocean Survey Seamap Profiles Plate BGM-1-71.

Elvers, D.J., Mathewson, C.C., Kohler, R.E., and Moses, R.L., 1967, Systematic ocean surveys by the USC and GSS Pioneer 1961-1963: Coast and Geodetic Survey Operational Data Report C and GSDR-1, 19 P.

Emery, K.O. and Uchupi., E., 1984, The Geology of the Atlantic Ocean, Springer, New York, 1050 p.

Engdahl, E.R., Van der Hilst, R.D., and Buland, R.P., 1998, Global teleseismic earthquake relocation with improved travel times and procedures for depth determination, Bull. Seism. Soc. Amer. 88. 722-743.

Ernst, E., Buchan, K.L., West, T.D., & Palmer, H.C., 1996, Diabase (Dolerite) Dyke Swarms of the World: First Edition, Geological Survey of Canada Open File D3241.

Exxon Production Research Company (World Mapping Project), 1985, Tectonic Map Series of the World, Exxon Production Research Company, Houston, TX.

Fairhead, J.D., 1988, Mesozoic plate tectonic reconstructions of the central South Atlantic Ocean: the role of the West and Central African Rift System, Tectonophysics, 155: 181-192.

Falconer, R.H.K. and Tharp, M., 1981, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•14,Canadian Hydrographic Service.

Fischer, A.G., et al., 1971, Initial Reports of the Deep Sea Drilling Project, Leg VI, Washington (U.S. Govt. Printing Office).

Fisher, R.L., pers. comm.

Fisher, R.L., Sclater, J.G. and McKenzie, D., 1971, Evolution of the Central Indian Ridge, Geological Society of America Bulletin 82: 553-562.

Fisher, R.L, Jantsch, M.Z., and Comer, R.L., 1982, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•9,Canadian Hydrographic Service.

Flanagan, J. P., Gilg, J. G., Jones, C. R., Marchant, F. L., Murchison, R. R., Rebman, J. H., Snodgrass, L. W., Sorensen, F. H., and Whitney, J. C. (compilers), 1981, Bathymetric Map: Caribbean Region,

published by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey, Washington, D. C., scale 1:2,500,000.

Fujita, K., Cook, D.B., Hasegawa, H., Forsyth, D., and Wetmiller, R., 1990, Seismicity and focal mechanisms of the Arctic region and the North American plate boundary in Asia, in Grantz, A., Johnson, L., and Sweeney, J.F., eds., The Arctic Ocean Region: Geological Society of America, Geology of North America, v. L., p. 79-100. (Moma Rift, NE Siberia)

Fullerton, L.G., Sager, W.W., and Handschumacher, D.W., 1989, Late Jurassic - Early Cretaceous evolution of the eastern Indian Ocean adjacent to northwest Australia, Journal of Geophysical Research, 94(B3): 2937-2953.

Gahagan L. M., Royer J.-Y., Scotese C. R., Sandwell D. T., Winn K., Tomlins R., Ross M. I., Newman J. S., Müller D., Mayes C. L., Lawver L. A. and Huebeck C. E., 1988, Tectonic fabric map of the ocean basins from satellite altimetry data. Tectonophysics, 155, pp. 1-26.

Gahalaut, V.K., and Chander, R., 1992, A rupture model fo the great earthquake of 1897, northeast India, Tectonophysics, 204(1-2): 163-174.

Gaina, C., Müller, R.D., Royer, J.-Y., Stock, J., Hardebeck, J., and Symonds, P., 1998, The tectonic history of the Tasman Sea: A puzzle with 13 pieces, Journal of Geophysical Research, vol. 103(B6), pp. 12413-12433.

Garfunkel, Z., Zak, I., and Freund, R., 1981, Active faulting in the Dead Sea Rift, Tectonophysics, 80: 1-26.

Geological World Atlas, publ. UNESCO, 1981.

Ghidella, M., 1999, personal communication. USAC data.

Gladczenko, T.P., Hinz, K., Eldholm, O., Meyer, H., Neben, S. & Skogseid, J., South Atlantic volcanic margins, Jrnl. Geol. Soc. London, 154, 465-470, 1997.

Global Volcanism Program, NHB MRC 119, Smithsonian Institution, Washington DC 20560, USA. Location of Holocene volcanos from: http://www.volcano.si.edu/gvp/volcdata/index.htm.

Goodlad, S.W., Martin, A.K., and Hartnady, C.J.H., 1982, Mesozoic magnetic anomalies in the southern Natal Valley, Nature, 295: 686-688.

Gradstein, F.M., and Ogg, J., 1996, A Phanerozoic time scale, Episodes, 19(1-2): 3-5.

Gradstein, F. M., Agterberg, F. P., Ogg, J. G., Hardenbol, J., van Veen, P., Thierry, J., and Huang, Z., 1994, A Mesozoic time scale, Journal of Geophysical Research, 99(B12): 24051-24074.

Grieve, R.A.F., 1991, Terrestrial impacts: The record in the rocks, Meteoritics, 26:175-195.

Grindley, N., Mann, P., and Dolan, J., 1997, Researchers investigate submarine faults north of Puerto Rico, EOS, Transactions, American Geophuysical Union, 78(38): 404.

Guennoc, P., Pautot, G., and Coutelle, A., 1988, Surficial structures of the northern Red Sea axial valley from 23°N to 28°N: time and space evolution of neo-oceanic structures, Tectonophysics, 153: 1-23.

Gutierrez-Alonso, G., 1999, Geological Map of Jamaica, from the web page: http://www.fiu.edu/orgs/caribgeol/jamaica.html

Hagevang, T., Eldholm, O. and Aalstad, J., 1983, Pre-23 magnetic anomalies between Jan Mayen and Greenland-Senja fracture zones in the Norwegian Sea, Marine Geophysical Research, 5: 345-363.

Håkansson, E. and Pederson, S.A.S., 1982, Late Paleozoic to Tertiary tectonic evolution of the continental margin in North Greenland, in Arctic Geology and Geophysics, Proc. Third Int. Sym. Arctic Geol., Embry, A.F. and Balkwell, H.R., eds., Canad. Soc. Pet. Geol., Calgary, Canada, 1982.

Hamilton, W., 1978, Tectonic map of the Indonesian region, USGS Survey, Map I-875-D, Reston, Va.

Handschumacher, D.W., 1976, Post-Eocene plate tectonics of the Eastern Pacific, *in* The Geophysics of the Pacific Ocean Basin and its Margins, Sutton, G. H., Manghnani, M. H., and Moberly, R. (editors), AGU Geophysical Monograph 19: 177-202.

Handschumacher, D.W., Pilger, R.H. Jr., Foreman, J.A., and Campbell, J.F., 1981, Structure and evolution of the Easter plate, GSA Memoir, 154: 63-76.

Handschumacher, D.W., Sager, W.W., and Hilde, T.W.C., 1988, Pre-Cretaceous tectonic evolution of the Pacific plate and extension of the geomagnetic polarity reversal time scale with implications for the origin of the Jurassic "Quiet Zone", Tectonophysics, 155: 365-380.

Harris, C., Watters, B.R. and Groenewald, P.B., 1991, Geochemistry of the Mesozoic regional basic dykes of western Dronning Maud Land, Antarctica, Contributions to Mineralogy and Petrology, 107: 100-111.

Hayes, D.E., Frakes, L.A., et al., 1975, Leg XXVIII, Initial Reports of the Deep Sea Drilling Project, Washington (U.S. Govt. Printing Office).

Hayes, D.E. and Taylor, B., 1978, A geophysical atlas of the East and Southeast Asian Seas, GSA Map and Chart Series MC-25, Washington, D.C.

Hayes, D.E. and Vogel, M., 1981, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•13,Canadian Hydrographic Service.

Heimann, A., Fleming, T.H., Elliot, D.H., and Foland, K.A., 1994, A short interval of Jurassic continental flood basalt volcanism in Antarctica as demonstrated by $^{40}Ar/^{39}Ar$ geochronology, Earth and Planetary Science Letters, 121: 19-41.

Herron, E.M.,1972, Sea-floor spreading and the Cenozoic history of the east-central Pacific, Geological Society of America Bulletin, 83: 1671-1692.

Hilde, T.W.C., Isezki, N., and Wageman, J.M., 1976, in The Geophysics of the Pacific Ocean Basin and its Margins, Geophys. Monograph 19, pp. 205-226.

Hill, K.C. and Hayward, A.B., 1988, Structural constraints on the Tertiary plate tectonic evolution of Italy, Mar. Petr. Geol., 5: 2-16.

Hinz, K., Bleford, D.J., Berner, U., Exon, N.E., Feary, D.A., Fritsch, J., Kudrass, H.R., Poggenburg, J., Popovici, A., Roeser, A.A., Schüter, H.U., Schröder, H., Whiticar, M.J., Wiedicke, M., Willcox, J.B., and Wissman, G., 1985, Geophysical, geological, and geochemical studies off West Tasmania and on the South Tasman Rise, 13th March 1985 - 12th May 1985, report for Bundesministerium für Forschung und Technologie (BMFT), Bundesanstalt für Geowissenschaften und Rohstoffe, Hannover, Germany. Archive Nr. BGR 098033, p. 111.

Hinz, K., and W. Krause, The continental margin of Queen Maud Land, Antarctica: Seismic sequences, structural elements, and geological development, Geol. Jb., E23, 17-41, 1982.

Hirkensson, E. and Pederson, S.A.S., 1982, Late Paleozoic to Tertiary tectonic evolution of the continental margin in North Greenland, in Arctic Geology and Geophysics, Proc. Third Int. Sym. Arctic Geol., Embry, A.F. and Balkwell, H.R., eds., Canad. Soc. Pet. Geol., Calgary, Canada, 1982.

Hooper, P.R., The Columbia River Basalt, Continental Flood Basalts, edited by J.D. Macdougall, pp. 1-33, Kluwer Academic, Dordrecht, Netherlands, 1988.

Horn, M.K., 2002, Burial Histories/Basin Subsidence. Data on a CD-ROM.

Horváth, F., 1993, Towards a Mechanical Model for the Formation of the Pannonian Basin, Tectonophysics, 226: 333-357.

Hotten, G., 1972, Madagascar (Représentation schématique du volcanisme, de la tectonique cassante, et des formations précmabriennes), scale 1:2,000,000, published by Le Bureau de Recherches Géologiques et Minières en 1974.

Hussong, D.M., Uyeda, S., et al., 1981, Initial Reports of the Deep Sea Drilling Project, Leg LX, Washington (U.S. Govt. Printing Office).

Instituto Geografico Nacional, 1970, Mapa Geologico de la Republica de Guatemala, scale 1:500,000.

International Seismological Centre, 2001, On-line Bulletin, http://www.isc.ac.uk/Bull, Internatl. Seis. Cent., Thatcham, United Kingdom,

Iwabuchi, Y., 1979, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•6,Canadian Hydrographic Service.

Jany, I., Scanlon, K.M., and Mauffret, A., 1990, Geological interpretation of combined Seabeam, GLORIA and seismic data from Anegada Passage (Virgin Islands, North Caribbean), Marine Geophysical Researches, 12(3): 173-196.

Jennings, C.W., 1961, Geologic map of California: Kingman sheet, scale 1:250,000, California Division of Mines and Geology, Sacramento, CA.

Johnson, G.L., and Vanney, J.R., 1980, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•18,Canadian Hydrographic Service.

Johnson, H.P. and Holmes, M.L., 1989, Evolution in plate tectonics: The Juan de Fuca Ridge, *in* Winterer, E.L., Hussong, D.M. and Decker, R.W. (eds), The Eastern Pacific Ocean and Hawaii, The Geology of North America, Geological Society of America, Boulder, Colorado, Vol. N., pp. 73-91.

Karasik, A. M., Mercuryev, S. A., Mitin, L. I., Sochenova, N. A., and Yanovsky, VN., 1986, Izv. Acad. Sci. USSR, 286: 933-938.

Karig, D.E., Ingle, J.C., Jr., et al., 1975, Initial Reports of the Deep Sea Drilling Project, Leg XXXI, Washington (U.S. Govt. Printing Office).

Kennett, J.P., Houtz, R.E., et al., 1974, Leg XXIX, Initial Reports of the Deep Sea Drilling Project, Washington (U.S. Govt. Printing Office).

Kent, D.V. and Gradstein, F.M., 1986, A Jurassic to recent chronology, in P.R. Vogt and B.E. Tucholke (eds), The Geology of North America, The Western North Atlantic Region, GSA DNAG vol. M, pp. 45-50.

Kimura, G., Sakakibara, M., and Okamura, M., 1994, Plumes in central Panthalassa? Deductions from accreted oceanic fragments in Japan, Tectonics, 13(4): 905-916.

Klitgord, K.D. and Mammerickx, J., 1982, Northern East Pacific Rise: Magnetic anomaly and bathymetric framework, Journal of Geophysical Research, 87(8): 6725-6750.

Klitgord, K.D., Popenoe, P. and Schouten, H., 1984, Florida: A Jurassic transform plate boundary, Journal of Geophysical Research, 89(B9): 7753-7772.

Klitgord, K.D. and Schouten, H., 1986, Plate kinematics of the central Atlantic, in P.R. Vogt and B.E. Tucholke (eds), The Geology of North America, The Western North Atlantic Region, GSA DNAG vol. M, pp. 351-378.

Kovacs, L.C., Srivastava, S.P. and Jackson, H.R., 1986, Results from an aeromagnetic investigation of the Nares Strait Region, J. Geodynamics, 6: 91-110.

Kristoffersen, Y., and K. Hinz, Evolution of the Gondwana plate boundary in the Weddell Sea area, in Geological Evolution of Antarctica, edited by M.R.A. Thomson, J.A. Crame, and J.W. Thomson, pp. 225-230, Cambridge University Press, Cambridge, UK, 1991.

Kroenke, L.W., Jouannic, C. and Woodward, P., 1983, Bathymetry of the southwest Pacific, Geophysical Atlas of the southwest Pacific, chart 1, UNIGCP 110, United Nations ESCAP, New York.

Kroenke, L., Scott, R., et al., 1980, Initial Reports of the Deep Sea Drilling Project, Leg LIX, Washington (U.S. Govt. Printing Office).

Ladd, J.W., 1974, South Atlantic seafloor spreading and Carribean tectonics, Ph.D.thesis, 251pp., Columbia University, New York, 1974.

LaBrecque, J.L. and Cande, S.C., 1986, Total intensity magnetic anomaly profiles, Northwest Ocean Margin Drilling Program, Regional Data Synthesis Series, Atlas 13, S.Atlantic Ocean and Adjacent Antarctic Continental Margin.

LaBrecque, J.L. and Hayes, D.E., 1979, Seafloor spreading history of the Agulhas Basin, Earth and Planetary Science Letters, 45: 411-428.

LaBrecque, J. and Rabinowitz, P.D., 1981, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•16,Canadian Hydrographic Service.

Larson, H.C., Saunders, A.D., Clift, P.D., et al., 1994, Proceedings of Ocean Drilling Project, Initial Reports, College Station, TX, 152, 797 p.

Larson, R.L., 1975, Late Jurassic sea-floor spreading in the eastern Indian Ocean, Geology, 3: 69-71.

Larson, R.L., Carpenter, G.B., and Diebold, J.B., 1978, A geophysical study of the Wharton Basin near the Investigator Fracture Zone, Journal of Geophysical Research, 83(B2): 773-782.

Larson, R.L., Pitman, W.C., Golobchenko, X., Cande, S.C., Dewey, J.F., Haxby, W.F. and LaBrecque, J.L., 1985, The Bedrock Geology of the World (color map), Freeman and Co., New York, NY.

Larson, R.L., Mutter, J.C., Diebold, J.B., Carpenter, G.B., and Symonds, D., 1979, Cuvier Basin: A product of ocean crust formation by Early Cretaceous rifting off Western Australia, Earth and Planetary Science Letters, 45: 105-114.

Larsen, H.L., 1984, Geology of the East Greenland shelf: in Petroleum Geology of the North European Margin, Norweg. Pet. Soc., Graham & Trotman, pp. 329-339.

Larue, D.K., 1994, Puerto Rico and the Virgin Islands, *in* S.K. Donovan and T.A. Jackson (eds.), Caribbean Geology: An Introduction, pp. 151-165, University of the West Indies Publisher's Association, Kingston, Jamaica. Color image taken from webpage, http://www.geology.uiowa.edu/~12_016/docs/PRGEO.html

Laughton, A.S., 1975, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•5,Canadian Hydrographic Service.

Lawrence, S.R., 1989, Prospects for petroleum in Late Proterozoic/Early Palaeozoic basins of southern-central Africa, Journal of Petroleum Geology, 12: 231-242.

Lawver, L.A., unpublished, 1994. Identification of Andaman Sea spreading ridge as defined by earthquakes.

Lawver, L.A., Gahagan, L.M., and Grantz, A.W., Tectonic evolution of the Arctic Region from Devonian, in preparation for Miller, E.L., Klemperer, S.L., and Grantz, A.W. (editors), Geology and Tectonic Development of the Bering and Chukchi Shelves and Adjacent Arctic Margins, GSA Special Paper. Pre-rotation outlines of Yukon Composite and Wrangellia North terranes and pre-compression outline of Yakutat Terrane.

Lawver, L.A. and Macdonald, D.I.M., 1998, personal communication. For South Atlantic Project.

Laxon, S., and McAdoo, D., 1994, Arctic ocean gravity field derived from ERS-1 satellite altimetry, Science, 265(5172): 621-624.

Leckie, D.A., Potocki, D.J., and Visser, K., 1991, The Lower Cretaceous Chinkeh Formation: A frontier-type play in the Liard Basin of Western Canada, American Association of Petroleum Geologists Basin, 75(8): 1324-1352.

Lee, T.-Y., Tang, C.-H., and Hsu, Y.-Y. (1992) Structural geometry of the deformation front between 22!N and 23!N, offshore southwestern Taiwan arc-continent collision zone; EOS, V. 73, p. 539 (abstract). Dec. 7-11, 1992, San Francisco.

Leroy, S., Mauffret, A., Patriat, P., and de Lepinay, B.M., 2000, An alternative interpretation of the Cayman trough evolution from a reidentification of magnetic anomalies, Geophysical Journal International, 141(3): 539-557.

Liu, C.S., Curray, J., and McDonald, J.M., 1982, New constraints on the tectonic evolution of the Eastern Indian Ocean, Earth and Planet.Sci. Letters, 331-342.

Lonsdale, P., 1989, Structural patterns of the Pacific floor offshore of Peninsula California, in Gulf and Peninsula Provinces of the Californias, AAPG Memoir, in press.

Mahoney, J.J., 1988. Deccan Traps. In Macdougall, J.D., ed., Continental Flood Basalts: Dordrecht, The Netherlands (Kluwer), 151-194.

Malahoff, A., Feden, R.H., and Fleming, H.S., 1982, Magnetic anomalies and tectonic fabric of marginal basins north of New Zealand, J. Geophy. Res., 87(B5): 4109-4125.

Mammerickx, J., The Foundation seamounts: Tectonic setting of a newly discovered seamount chain in the South Pacific, Earth Planet. Sci. Lett., 113, 293-306, 1992.

Mammerickx, J. and Cande, S., 1982, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•15,Canadian Hydrographic Service.

Mammerickx, J., Naar, D.F., and Tyuce, R.L., 1988, The Mathematician Paleo-plate, Journal of Geophysical Research, 93: 3025-3040.

Mammerickx, J., Fisher, R.L., Emmel, K.J., and Smith, S.M., 1976, Bathymetry of the East and Southeast Asian Seas, GSA Map and Chart Series MC-17, Washington, D.C.

Mammerickx, J., Herron, E.M., and Dorman, L., 1980, Evidence for two fossil spreading ridges in the southeast Pacific, Geological Society of America Bulletin, 91: 263-271.

Mammerickx, J. and Sharman, G.F., 1988, Tectonic evolution of the North Pacific during the Cretaceous Quiet Period, J. Geophys, Res., 93: 3009-3024.

Mammerickx, J. and Smith, S.M., 1984, GEBCO panel 5•7, GEBCO-General bathymetric chart of the oceans, 5th ed., International Hydrographic Organization/Intergovernmental Oceanic Commission/Canadian Hydrographic Service, Ottawa, Ontario.

Mammerickx, J. and Smith, S.M., 1984, GEBCO panel 5•11, GEBCO-General bathymetric chart of the oceans, 5th ed., International Hydrographic Organization/Intergovernmental Oceanic Commission/Canadian Hydrographic Service, Ottawa, Ontario.

Mann, P., personal communication. NEHRP Proposal. Active tectonic lineaments in Mona Passage, between Hispaniola and Puerto Rico.

Mann, P., Draper, G., and Burke, K., 1985, Neotectonics of a strike-slip restraining bend system, Jamaica: Strike-slip deformation, basin formation, and sedimentary, *in* K.T. Biddle and N. Christie-Blick (eds.), SEPM Special Publication, 37: 211-226, SEPM.

Mann, P., Prentice, C.S., Burr, G., Peña, L.R., and Taylor, F.W., 1998, Tectonic geomorphology and paleoseismology of the Septentrional fault system, Dominican Republic, *in* J.F. Dolan and P. Mann (eds.), Active Strike-Slip and Collisional Tectonics of the Northern Caribbean Plate Boundary Zone, Special Papers, 326: 63-123, Geological Society of America, Boulder, CO.

Mann, P., Taylor, F.W., Edwards, R.L., and Ku, T.L., 1995, Actively evolving microplate formation by oblique collision and sideways motion along strike-slip faults: An example from the northeastern Caribbean plate margin, Tectonophysics, 246(1-3): 1-69.

Mann, P., Tyburski, S. A., and Rosencrantz, E., 1991, Neogene development of the Swan Islands restraining bend complex, Caribbean Sea, Geology, 19:823-826.

Markl, R.G., 1974, Evidence for the breakup of Eastern Gondwanaland by the Early Cretaceous, Nature, 251: 196-199.

Markl, R.G., 1978, Further evidence for the Early Cretaceous breakup of Gondwanaland off Southwestern Australia, Earth and Planetary Science Letters, 39: 211-225.

Marks, K.M., Stock, J.M. and Quinn, K.J., 1999, Evolution of the Australian-Antarctic discordance since Miocene time, Journal of Geophysical Research, 104(B3): 4967-4981.

Marocco, R., Lavenu, A., Baudino, R., Jaillard, E., and Ordonez, M., 1995, Intermontane late Paleogene Neogene basins of the Andes of Ecuador and Peru: Sedimentologic and tectonic characteristics, *in* A.J. Tankard, R.S. Soruco and H.J. Welsink (eds.), Petroleum Basins of South America, AAPG Memoirs, 62: 597-613.

Martelat, J.-E., Nicollet, C., Lardeaux, J.-M., Vidal, G., and Rakotondrazafy, R., 1997, Lithospheric tectonic structures developed under high-grad metamorphism in the southern part of Madagascar, Geodinamica Acta, 10(3): 94-114.

Martin, A.K., Goodlad, S.W., Hartnady, C.J.H., and du Plessis, A., 1982, Cretaceous paleopositions of the Falkland Plateau relative to southern Africa using Mesozoic seafloor spreading anomalies, Geophysical Journal of Royal Astronomy Society, 71: 567-579.

Martin, A.K. and Hartnady, C.J.H., 1986, Plate tectonic development of the south west Indian Ocean: a revised reconstruction of East Antarctica and Africa, Journal of Geophysical Research, 91(B5): 4767-4786.

Marton, G. and Buffler, R.T., 1994, Jurassic reconstruction of the Gulf of Mexico Basin, International Geology Review, vol. 36, pp. 545-586.

Marzoli, A., Renne, P.R., Piccirillo, E.M., Ernesto, M., Bellieni, G., and DeMin, A., 1999, Extensive 200-million-year-old continental flood basalts of the Central Atlantic Magmatic Province, Science, 284(5414): 616-618.

Mascle, J., Marinho, M. and Wannesson, J., 1986, The structure of the Guinean continental margin: Implications for the connection between the Central and Southern Atlantic ocean, Sond. Geol. Rundschau, 75(1): 57-70.

Massell, C.G., 1996, The Neotectonics of the Macquarie Ridge Complex, Pacific-Australia Plate Boundary, 1997, Master of Arts thesis. The University of Texas at Austin, pp. 101.

Masson, D.P., Kidd, R.B.,and Roberts, D.G., 1982, Late Cretaceous sediment sample from the Amirante Passage, western Indian Ocean, Geology, 10: 264-266.

Mauffret, A., and Leroy, S., 1999, Neogene intraplate deformation of the Caribbean Plate at the Beata Ridge, *in* P. Mann (eds.), Caribbean Basins, Sedimentary Basins of the World, 4: 627-669, Elsevier Science B.V., Amsterdam, The Netherlands.

May, P.R., 1971, Pattern of Triassic-Jurassic diabase dikes around the North Atlantic in the context of predrift position of the continents, Geological Society of America Bulletin, 82:1285-1292.

Mayes, C.L., Lawver, L.A., and Sandwell, D.T., 1990, Tectonic history and new isochron chart of the South Pacific, Journal of Geophysical Research, 95(B6), pp. 8543-8567.

McKenzie, D. and Sclater, J.G., 1971, The evolution of the Indian Ocean since the Late Cretaceous, Geophys J. Roy. astr. Soc., 25: 437-528.

McKenzie, K.R., 1984. Crustal Stratigraphy and Realistic Seismic Data, Ph.D. Thesis, University of California, San Diego, 121 pp.

Mejorada, P., 1976, Carta geologica del la Republica Mexicana, scale 1:2,000,000.

Meschede, M., Barckhausen, U., and Worm, H.-U., 1998, Extinct spreading on the Cocos Ridge, Terra Nova, 10(4): 211-216.

Miall, A.D., 1983, the Neves Strait problem: A re-evaluation of the geological evidence in terms of a diffuse oblique-slip plate boundary between Greenland and the Canadian Arctic Islands, Tectonophysics, 100:227-239.

Miles, P.R., Munschy, M., and Segoufin, J., 1998, Structure and early evolution of the Arabian Sea and East Somali Basin, Geophysical Journal International, 134(3): 876-888.

Milsom, J., Masson, D., Nichols, G., Sikumbang, N., Dwiyanto, B., Parson, L., and Kallagher, H., 1992, The Manokwari Trough and the western end of the New Guinea Trench, Tectonics, 11: 145-153.

Mitchell, C., G.K. Taylor, K.G. Cox, and J. Shaw, Are the Falkland Islands a rotated microplate?, Nature, 319, 131-134, 1986.

Mobil Exploration and Producing Technical Center, 1994,Global Isopach Map and Digital Database, Dallas, TX.

Mohr, P., and Zannettin, B., 1988. The Ethiopian flood basalt province. In Macdougall, J.D., ed., Continental Flood Basalts: Dordrecht, The Netherlands (Kluwer), 63-110.

Mohriak W.U., Basetto B. & Vieira I.S., 1998. Crustal architecture and tectonic evolution of the Sergipe-Alagoas and Jacuipe basins, offshore northeastern Brazil, Tectonophysics, 288, 199-220.

Molnar, P., Atwater, T., Mammerickx, J., and Smith, S.M., 1975, Magnetic anomalies, bathymetry, and the tectonic evolution of the South Pacific since the Late Cretaceous, Geophys. J.R. astr.Soc., 40: 383-420.

Monahan, D., Falconer, R.H.K., and Tharp, M., 1982, General Bathymetric Map of the Oceans (GEBCO), scale 1:10,000,000, sheet 5•10,Canadian Hydrographic Service.

Montenat, C., Ramahavory, L., and Croisile, M., 1996, Tectonic and sedimentary evolution of the western Madagascan margin during the Jurassic in the Morondava Basin, Madagascar, Bulletin des Centres de Recherches Exploration-Production Elf Aquitaine, 20(2): 323-340.

Mountain, G.S., Miller, K.G., Blum, P., et al., 1994, Proceedings of Ocean Drilling Project, Initial Reports, College Station, TX, 150, 885 p.

Müller, R.D. and Roest, W.R., 1992, Fracture Zones in the North Atlantic, From Combined Geosat and Seasat Data; Jour. Geophys. Res., 97, 3337-3350.

Müller, R.D., Royer, J.-Y., Cande, S.C., Roest, W.R., and Maschenkov, S., 1999, New constraints on the Late Cretaceous/Tertiary plate tectonic evolution of the Caribbean, *in* Caribbean Sedimentary Basins, P. Mann (editor), Sedimentary Basins of the World series, Elsevier Science, Amsterdam, The Netherlands, pp. 33-59.

Munschy, M., Antoine, C., and Gachon, A., 1996, Evolution tectonique de la region des Tuamotu, ocean Pacifique Central, Comptes Rendu de l'Academie de Sciences, Serie IIa, 323:941-948.

Muszala, S.P., Grindlay, N.R., and Bird, R.T., 1999, Three-dimensional Euler deconvolution and tectonic interpretation of marine magnetic anomaly data in the Puerto Rico Trench, Journal of Geophysical Research, B, Solid Earth and Planets, 104(12): 29175-29187.

Nakanishi, M., Tamaki, K., and Kobayashi, K., 1989, Mesozoic magnetic anomaly lineations and seafloor spreading history of the Northwestern Pacific, Journal of Geophysical Research, 94(B11): 15,437-15,462.

Nakanishi, M., Tamaki, K., and Kobayashi, K., 1992, Magnetic anomaly lineations from Late Jurassic to Early Cretaceous in the west-central Pacific Ocean, Geophysical Journal International, 109: 701-719.

New Zealand Geological Survey, 1972, "Geological map of New Zealand 1:1,000,000", North and South Islands sheets (1st edition), Department of Scientific and Industrial Research, Wellington, New Zealand.

Norton, I.O. and Sclater, J.G., 1979, A model for the evolution of the Indian Ocean and the breakup of Gondwanaland, Journal of Geophysical Research, 84: 6803-6830.

Nunns, A.G., 1983, Plate tectonic evolution of the Greenland-Scotland ridge and surrounding regions, in Bott, M., Saxov, S., Talwani, M. and Thiede, J., eds., Structure and Development of the Greenland - Scotland Ridge, new methods and concepts, Plenum Publ. Corp., New York, pp. 11-30.

Nürnberg, D. and Müller, R.D., 1991, The tectonic evolution of the South Atlantic from Late Jurassic to present, Tectonophysics, 191: 27-53.

Nürnberg, D., Müller, R.D., and Scotese, C.R., 1987. The tectonic evolution of the South Atlantic from Late Jurassic to present, Paleoceanographic Mapping Project Progress Report No. 27-1287.

O'Connor, J.M., Stoffers, P., and Wijbrans, J.R., 1998, Migration rate of volcanism along the Foundation chain, SE Pacific, Earth Planet Sci Lett, 164(1-2): 41-59.

Oh, J.Y., J.A. Austin, J.D. Phillips, M.F. Coffin, and P.L. Stoffa, Seaward-dipping reflectors offshore the southeastern United States: Seismic evidence for extensive volcanism accompanying sequential formation of the Carolina trough and Blake Plateau basin, Geology, 23, 9-12, 1995.

Ohta, Y., 1982, Morpho-tectonic studies around Svalbard and the northernmost Atlantic, Canadian Society of Petroleum Geologists Memoir 8, pp. 415-429.

Olivet, J-L., LePichon, X., Monti, S. and Sichler, B., 1974, Charlie-Gibbs Fracture Zone, Journal of Geophysical Research, 79(14): 2059-2072.

Otsuki, K. and Masayuki, E., 1979, Major strike-slip faults and their bearing on spreading in the Japan Sea, in Uyeda, S., Murphy, R.W., and Kobayashi, K. (eds.), Geodynamics of the Western Pacific, Proceedings of the International Conference on Geodynamics of the Westrn Pacific-Indonesian Region, March 1978, Tokyo, Advances in Earth and Planetary Sciences, vol. 6, pp. 537-555.

Packhorn, G.H. (ed.), 1982, The evolution of the India-Pacific plate boundaries, Tectonophysics, Special Issue, 87: 1-397

Pankhurst, R.J., Weaver, S.D., Bradshaw, J.D., Storey, B.C., and Ireland, T.R., 1998, Geochronology and geochemistry of pre-Jurassic superterranes in Marie Byrd Land, Antarctica, Journal of Geophysical Research - Solid Earth, 103(B2): 2529-2547.

Pardo-Casas, F. and Molnar, P., 1987, Relative motion of the Nazca (Farallon) and South American plates since Late Cretaceous time, Tectonics, 6(3): 215-232.

Parfenov, L. & others, in press, "Comprehensive Geodynamic Chart," inset of northeastern Siberia from the "Geodynamic map of Okhotsk and surrounding territories."

Parfenov, L., in press, Terrane accretion in Northeast Asia.

Patriat, P., 1987, Reconstitution de l'évolution du systéme de dorsales de l'Océan Indien par les méthodes de la cinématique des plaques, Territoire des Terres Australes et Antarctique Françcaises (ed.), 308 p., PhD Thesis, Université de Paris VI, France. [Central Indian Ridge].

Peirce, J., Weissel, J., et al., 1989, Leg 121, Proceedings of the Ocean Drilling Program, Initial Reports, College Station, TX.

Perry, R.K., Fleming, H.S., Weber, J.R., Kristoffersenn, Y., Hall, J.K., Grantz, A., and Johnson, G.L., 1985, Bathymetry of the Arctic Ocean, Naval Research Laboratory - Acoutistics Division, scale 1:4,704,075 at 78°N.

Perry, R.K., Fleming, Weber, J.R., Kristofferson, Y., Hall, J.K., Grantz, A., Johnson, G.L., and Cherkis, N.Z., 1987, Bathymetry of the Arctic Ocean, Geological Society of America, scale 1:6,000,000 at latitude 75°N.

Peter et al.

Petterson, M.G., Neal, C.R., Mahoney, J.J., Kroenke, L.W., Saunders, A.D., Babbs, T.L., Duncan, R.A., Tolia, D., and McGrail, B., 1997 , Structure and deformation of north and central Malaita, Solomon Islands: tectonic implications for the Ontong Java Plateau Solomon arc collision, and for the fate of oceanic plateaus , Tectonophysics , 283 : 1-33

Piccirillo, E.M., Melfi, A.J., Comin-Chiaramonti, P., Bellieni, G., Ernesto, M., Margues, L.S., Nardy, A.J.R., Pacca, I.G., Roisenberg, A., and Stolfa, D., 1988. Continental flood volcanism from the Paraná Basin (Brazil). In Macdougall, J.D., ed., Continental Flood Basalts: Dordrecht, The Netherlands (Kluwer), 195-238.

Planke, S., Symonds P.A., Alvestad E. & Skogseid J., subm. 1997. Seismic volcanostratigraphy of large-volume basaltic extrusives on rifted margins. Journal of Geophysical Research. (volcanic margin lineament off NW Australia)

Plummer, P.S., 1996, The Amirante ridge-trough complex: response to rotational transform rift/drift between Seychelles and Madagascar, Terra Nova, 8:34-47.

Pringle, M.S., Storey, M., and Wijbrans, J., 1994, 40Ar/39Ar geochronology of Mid-Cretaceous Indian Ocean basalts: constraints on the origin of large flood basalt provinces, EOS, Transactions, AGU,1994 Fall Meeting, 75(44): 728.

Proserpio, C.A., 1978, Descripcion Geologica de la Hoja 42d, Gastre (Provincia del Chubut), Servicio Geologico Nacional, Buenos Aires. Bulletin No. 159.

Rabinowitz, P.D., Coffin, M.F., and Falvey, D., 1983, The separation of Madagascar and Africa, Science 220, (4592) 67-69.

Rabinowitz, P.D. and LaBrecque, J., 1979, The Mesozoic South Atlantic Ocean and evolution of its continental margins. Journal of Geophysical Research, 84(B11): 5973-6002.

Raff, A.D. and R.G. Mason, 1961, Magnetic survey off the west coast of North America, 40°N latitude to 52°N latitude, Geological Society of America Bulletin, 72(2): 1267-1270.

Ramana, M.V., Nair, R.R., Sarma, K.V.L.N.S., Ramprasad, T., Krishna, K.S., Subrahmanyam, V., Dcruz, M., Subrahmanyam, C., Paul, J., Subrahmanyam, A.S., and Chandrasekhar, D.V., 1994, Mesozoic Anomalies in the Bay of Bengal, Earth and Planetary Science Letters, 121: 469-475.

Reeves, C.V., Karanja, F.M., and Macleod, I.N., 1987, Geophysical evidence for a failed Jurassic rift and triple junction in Kenya, Earth and Planetary Science Letters, 81:299-311.

Reksnes, P.A. and Vågnes, E., 1985, Evolution of the Greenland Sea and Eurasia Basin, Cand. Scient. thesis, Univ. of Oslo, 136 pp.

Renkin, M., Master's thesis, The Univ. of TX at Austin, 1986.

Reynaud, C., Jaillard, E., Lapierre, H., Mamberti, M., and Mascle, G.H., 1999, Oceanic plateau and island arcs of southwestern Ecuador: their place in the geodynamic evolution of northwestern South America, Tectonophysics, 307(3-4): 235-254.

Roeser, H.A., Bargelot, H.-O., Fritsch, J., Hinz, K., Kewitsch, P., Meyer, H., and Schreckenberger, B., 1990. Geophysical investigations on the crustal structure off East Antarctica between longitudes 0° and 40°E: final report on the PFS Polarstern cruise ANT VIII/6. Bundesanstalt für Geowissenschaften und Rohstoffe Report 106.883, 96 pp.

Roest, W.R. and Srivastava, S.P., 1989, Seafloor spreading history I: Magnetic anomalies along track, in East Coast Basin Atlas Series: Labrador Sea, J.S. Bell (coordinator), Atlantic Geoscience Centre, Geological Survey of Canada, Map sheet L17-1, in press.

Rogers, R., 2000, Structural and stratigraphic constraints on the Cretaceous-Cenozoic tectonic evolution of the Chortis block, Honduras: Unpublished Ph.D. Proposal, Department of Geological Sciences, University of Texas at Austin, 25 p.

Rosencrantz, E., 1990, Structure and tectonics of the Yucatan basin, Caribbean Sea, as determined from seismic reflection studies, Tectonics, 9:1037-1059.

Rosencrantz, E., 1995, Opening of the Cayman Trough and the evolution of the northern Caribbean Plate boundary. Geological Society of America, 1995 annual meeting, Abstracts with Programs, 27(6): 153. Magnetics taken from a figure for a new in preparation.

Rosencrantz, E., and Mann, P., 1991, SeaMARC II mapping of transform faults in the Cayman trough, Geology, 19:690-693.

Rosencrantz, E. and Pardo, G., 19??, Investigations Into the Geology of Cuba, University of Texas at Austin Institute for Geophysics unpublished atlas, p. 47. Data digitized from Figure 1 of Section 1.1, "An Overview of the Cuban Orogen Geological Divisions."

Rosencrantz, E., Ross, M. and Sclater, J.G., 1988, Age and spreading history of the Cayman Trough as determined from depth, heat flow, and magnetic anomalies, Journal of Geophysical Research, 93(B3): 2141-2157.

Ross, M.I. and Scotese, C.R., 1988, A hierarchical tectonic model of the Gulf of Mexico and Caribbean region, Tectonophysics, 155: 139-168.

Royer, J.-Y., 1987, new compilation, POMP Progress Report #29-1287.

Royer, J.-Y., 1998, personal communication.

Royer, J.Y., Gordon, R.G., DeMets, C., and Vogt, P.R., 1997, New limits on the motion between India and Australia since chron 5 (11 Ma) and implications for lithospheric deformation in the equatorial Indian Ocean, Geophysical Journal International, 129(1): 41.

Royer, J.-Y., Patriat, P., Bergh, H.W., and Scotese, C. R., Evolution of the Southwest Indian Ridge from the Late Cretaceous (anomaly 34) to the Middle Eocene (anomaly 20), 1988, Tectonophysics, 155: 235-260, [See POMP Progress Report #25-0987].

Royer, J.Y., and Rollet, N., 1997, Plate-tectonic setting of the Tasmanian region, Australian Journal of Earth Sciences, 44(5): 543-560

Royer, J.-Y. and Sandwell, D.T., 1989, Evolution of the Eastern Indian Ocean since the Late Cretaceous: Constraints from Geosat altimetry, Journal of Geophysical Research, 94(B10): 13,755-13,782.

Royer, J.-Y. and Schlich, R., 1988, The Southeast Indian Ridge between the Rodriguez Triple Junction and the Amsterdam and Saint-Paul Islands: detailed kinematics for the past 20 Ma, Journal of Geophysical Research, 93(B11): 13,524-13,550.

Royer J.-Y., Sclater J. G. and Sandwell, D.T., 1989, A preliminary tectonic chart of the Indian Ocean, Proceedings of the Indian Academy of Sciences, J. N. Brune (Ed.), 98(1), pp. 7-24.

Sutherland, R., 1999, Basement geology and tectonic development of the greater New Zealand region: an interpretation from regional magnetic data, Tectonophysics, v. 308(3), 341-362.

Rusmore, M.E. and Woodsworth, G.J., 1989, A note on the Coast-Intermontane Belt transition, Mount Waddington map area, British Columbia, *in* Cordillera and Pacific margin, Paper - Geological Survey of Canada, Rep. No. 89-1E, pp. 163-167.

Sager, W.W., Kim, J., Klaus, A., Nakanishi, M., and Khonkishieva, L.M., Bathymetry of Shatsky Rise, Northwest Pacific Ocean: Implications for ocean plateau development at a triple junction, submitted to Journal of Geophysical Research.

St. John, B., 1984, Sedimentary provinces of the world - hydrocarbon productive and nonproductive, Williams & Heinz Map Corporation, Capitol Heights, MD, 20743. Scale 1:31,368,000 or 500 miles to the inch at the equator. Van der Grinten projection.

Saltus, R.W., 1993, Upper-crustal structure beneath the Columbia River Basalt Group, Washington: Gravity interpretation controlled by borehole and seismic studies, Geological Society of America Bulletin, 105:1247-1259.

Sandwell, D.T., 1984, Along-track deflection of the vertical from Seasat: GEBCO overlays, NOAA Tech. Memo., NOS NGS-40.

Sandwell, D.T., 1994, New global marine gravity map/grid based on stacked ERS-1, Geosat and Topex altimetry, EOS, Transactions AGU, 75(16): 321.

Sandwell, D.T. and Smith, W.H.F., 1992, Global marine gravity from ERS-1, Geosat and Seasat reveals new tectonic fabric, EOS Trans. AGU, 73 (43): 133.

Sawyer, D., 1985, Total tectonic subsidence: A parameter for distinguishing crustal type at the U.S. Atlantic continental margin, Journal of Geophysical Research, 90(B9): 7751-7769.

Sawyer, D.S., Whitmarsh, R.B., Klaus, A., et al., 1994, Proceedings of Ocean Drilling Project, Initial Reports, College Station, TX, 149, 719 p.

Schlich, R., 1982, The Indian Ocean: Aseismic ridges, spreading centers and basins, in Nairn, A.E.M., and Stehli, F.G. (eds), The Ocean Basins and Margins: The Indian Ocean, 6: 51-147.

Schlich, R., Coffin, M. F, Munschy, M., Stagg, H.M.J., Li, Z.G., and Revill, K., 1987, Bathymetric Chart of the Kerguelen Plateau, joint publication of the Bureau of Mineral Resources, Canberra, Australia, and the Institut de Physique du Globe de Strasbourg, Strasbourg, France.

Schlich, R., Dyment, J., and Munschy, M., 1990, Structure and age of the Mascarene and Madagascar basins, abstract in "Volcanisme intraplaque. Le Point Chaud de la Reunion," Ile de la Reunion, November 12-17, 1990.

Schlich, R., Wise, S.W., Jr., et al., 1989, Leg 120, Proceedings of the Ocean Drilling Program, Initial Reports, College Station, TX.

Sclater, J.G., Luyendyk, B.P., and Meinke, L., 1976, Magnetic lineations in the southern part of the Central Indian Basin, Geological Society of America Bulletin, 87: 371-378.

Scripps Data Center.

Searle, R., 1980, Tectonic pattern of the Azores spreading centre and triple junction, Earth And Planetary Science Let., 51: 415-434.

Secretaría de Minería (Dirección Nacional del Servicio Geológico), 1995, Mapa Geológico de la Provincia del Chubut, República Argentina. Ministerio de Economía y Obras y Servicios Públicos. Polyconic Projection. Scale 1:750,000.

Segoufin, J., 1981, Morphologie et structure du canal de Mozambique, Ph.D. thesis, Université Louis Pasteur, Strasbourg, 236 pp.

Segoufin, J. and Patriat, P., 1981, Reconstructions de l'océan Indian occidental pour les époques des anomalies M21, m2 et 34, paléoposition de Madagascar, Bull. Soc. Geol. France, 23: 603-607.

Sharman, G.F. and Risch, D.L., 1988, Northwest Pacific tectonic evolution in the Middle Mesozoic, Tectonophysics, 155: 331-344.

Shaw, R.D., 1978, Sea floor spreading in the Tasman Sea: a Lord Howe Rise-eastern Australia reconstruction, Bulletin of the Australian Society for Exploration Geophysics, 9: 75-81.

Shaw, R.D., 1979. On the evolution of the Tasman Sea and adjacent continental margins. Unpublished Ph.D. thesis, University of Sydney, Australia, 312 pp.

Shaw, S.H.A., Mansouri, A., and El Ghoul, M., 1993, Palaeozoic sandstone reservoirs of the Hamada Basin, NW Libya: effects of synsedimentary processes on porosity, Journal of Petroleum Geology, 16: 345-352.

Silberling, N.J., Jones, D.L., Monger, J.W.H., and Coney, P.J., 1992, Lithotectonic Terrane Map of the North American Cordillera, U.S. Geological Survey Miscellaneous Investigations Series, Map I-2176.

Silberling, N.J., Jones, D.L., Monger, J.W.H., Coney, P.J., Berg, H.C., and Plafker, G., 1994, Lithotectonic Terrane Map of Alaska and Adjacent Parts of Canada, Plate 3 of the Geology of Alaska, The Geology of North America Series, vol. G-1, Geologic Society of America, Boulder, CO, 1994.

Simpson, E.S.W., Schlich, R., et al., 1974, Initial Reports of the Deep Sea Drilling Project, Leg XXV, Washington (U.S. Govt. Printing Office).

Smith, D.G., 1987, Late Paleozoic to Cenozoic reconstructions of the Arctic, in Tailleur, I.L. and Weimer, P. eds., Alaskan North Slope Geology, Society of Economic Paleontologists and Mineralogists, Pacific Section, Los Angeles.

Smith, W.H.F., and Sandwell, D.T., 1995, Marine gravity field from declassified Geosat and ERS-1 altimetry, EOS, Fall Meeting Abstracts, 76(46): F156

Smith, W.H.F., and Sandwell, D.T., 1997, Global sea floor topography from satellite altimetry and ship depth soundings, Science, 277:1956-1962

Srivastava, S.P. and Roest, W.R., in prep., Evolution of the North Atlantic: A case of jumping plate boundaries and microplates.

Srivastava, S.P., Verhoeff, J. and Macnab, R., 1988, Results from a detailed aeromagnetic survey across the Northeast Newfoundland Margin, PartI: Spreading anomalies and relationship between magnetic anomalies and the ocean-continent boundary, J. Mar. Petr. Geol., 5(4): 306-323.

Stagg, H.M.J., and Willcox, J.B., 1991, Structure and hydrocarbon potential of the Bremer Basin, southwest Australia, BMR Journal of Australian Geology & Geophysics, 12: 327-337.

Stephenson, R.A., Embry, A.F., Nakiboglu, S.M., and Hastaoglu, M.A., 1987, Rift-initiated Permian to Early Cretaceous subsidence of the Sverdrup Basin, *in* C. Beaumont and A.J. Tankard (eds.), Sedimentary basins and basin-forming mechanisms, 12, pp. 213-231, Atlantic Geoscience Society, Calgary, Alberta.

Stern, T.A. and Davey, 1989, Crustal structure and origin of basins formed behind the Hikurangi subduction zone, New Zealand, *in* R.A. Price (eds.), Origin and evolution of sedimentary basins and their energy and mineral resources, 48, pp. 73-86, American Geophysical Union, Washington, D.C.,

Stern, T.A. and ten Brink, U.S., 1989, Flexural uplift of the Transantarctic Mountains, Journal of Geophysical Research, 94: 10315-10330.

Stock, J., 1981, Master Thesis, M.I.T., Cambridge, Massachusetts.

Stock, J. and Molnar, P., 1987, Revised history of early Tertiary plate motion in the southwest Pacific, Nature, 325: 495-499.

Storey, M., Kent, R., Saunders, A.D., Salters, V.J., Hergt, J., Whitechurch, H., Sevigny, J.H., Thirlwall, M.F., Leat, P., Ghose, N.C., and Gifford, M., 1992, Lower Cretaceous volcanic rocks on continental margins and their relationship to the Kerguelen Plateau, *in* S.W.J. Wise, R. Schlich and Et al. (eds.), Proc. ODP, Sci. Results, Proc. ODP, Sci. Results, 120: 33-53, Ocean Drilling Program, College Station, TX.

Storey, M., Mahoney, J.J., and Saunders, A.D., 1997, Cretaceous basalts in Madagascar and the transition between plume and continental lithosphere mantle sources, *in* J.J. Mahoney and M.F. Coffin (eds.), Large Igneous Provinces: Continental, Oceanic, and Planetary Flood Volcanism, Geophysical Monograph, 100: 95-122, American Geophysical Union, Washington, D.C.

Talwani, M. and Eldholm, O., 1977, Evolution of the Norwegian -Greenland Sea, Geological Society of America Bulletin, 88: 969-999.

Tamaki, K. and Larson, R.L., 1988, The Mesozoic tectonic history of the Magellan microplate in the western Central Pacific, Journal of Geophysical Research, 93: 2857-2874.

Tamaki, K., Toshima, M. and Larson, R.L., 1979, Remnant Early Cretaceous spreading center in the central Pacific Basin, Journal of Geophysical Research, 84: 4501-4510.

Tapscott, C., Patriat, P., Fisher, R.L., Sclater, J.G., Hoskins, H., and Parsons, B., 1980, The Indian Ocean triple junction, Journal of Geophysical Research, 85: 4723-4739.

Taylor, B., Crook, K. and Sinton, J., 1994, Extensional transform zones and oblique spreading centers, Journal of Geophysical Research, 99: 19,707-19,718.

Teitz, H.H., 1991, The Ogaden Basin, Ethiopia: an underexplored sedimentary basin, Journal of Petroleum Geology, 14(1): x-xii.

Theberge, A.E., Jr., 1971, Magnetic survey off southern California and Baja California: Rockwell, Maryland, National Oceanographic and Atmospheric Administration, National Ocean Survey, scale 1:1,000,000.

Tikku, A.A. and Cande, S.C., 1999, The oldest magnetic anomalies in the Australian-Antarctic Basin: Are they isochrons?, Journal of Geophysical Research, vol. 104(B1): 661-677.

Tiratsoo, E.N.(editor) and Tiratsoo, C.G.H., 1990, Introduction to petroleum developments in P.R. China, Journal of Petroleum Geology, 13: 5-6.

U.S.G.S., 1998, GTOPO30. Elevations in GTOPO30 are regularly spaced at 30-arc seconds (approximately 1 kilometer).

Vedder, J.G. and Colwell, J.B., 1989, Introduction to the geology and offshore resources of the central and western Solomon Islands and eastern Papua New Guinea, *in* Vedder, J.G. and Bruns, T.R. (editors), Geology and offshore resources of Pacific island arcs - Solomon Islands and Bougainville, Papua New Guinea Regions, Circum-Pacific Council for Energy and Mineral Resources Earth Science Series, v. 12, pp. 1-6.

Veevers, J.J., 1986, Breakup of Australia and Antarctica estimated as mid-Cretaceous (95±5 Ma) from magnetic and seismic data at the continental margin, Earth and Planetary Science Letters, 77: 91-99.

Veevers, J.J., Heirtzler, J.R., et al., 1974, Leg XXVII, Initial Reports of the Deep Sea Drilling Project, Washington (U.S. Govt. Printing Office).

Veevers, J.J., Tayton, J.W., Johnson, B.D., and Hansen, L., 1985, Magnetic expression of the continent-ocean boundary between the western margin of Australia and the Eastern Indian Ocean, J. Geophys., 56: 106-120.

Vogt, P.R., 1986, Magnetic anomalies of the North Atlantic Ocean, in: Vogt, P.R. and Tucholke, B.E., eds., The Geology of North America, vol. M, The Western North Atlantic Region, GSA, Plate 3.

Vogt, P.R., Cherkis, N.Z., Morgan, G.A., 1983, Project Investigator I: Evolution of the Australia-Antarctic discordance deduced from a detailed aeromagnetic survey, in Antarctic Earth Science, R.L. Oliver, P.R. James and J.B. Lago (eds): Proceeding of the IV International Symposium on Antarctic Earth Science, Australian Academy Press, Canberra, pp. 608-613.

Von der Borch, C.C., Sclater, J.G., et al., 1974, Initial Reports of the Deep Sea Drilling Project, Leg XXII, Washington (US Govn't Printing Office),

Wang, S., Xie, T., Wang, S., and Liu, L., 1992, Geological characteristics and petroleum potential of sedimentary basins of the China continental shelf, *in* J.S. Watkins, F. Zhiqiang and K.J. McMillen (eds.), Geology and geophysics of continental margins : (proceedings of the M.T. Halbouty Continental Margins Conference), 53, pp. 3-16, American Association of Petroleum Geologists, Tulsa, Okla.

Wang, W.H., Zhu, G.H., and Zhang, W.P., 1992, Diagenetic evolution of Longtan Formation sandstones (Upper Permian), Meishan Basin, Zhejiang Province, China, Journal of Southeast Asian Earth Sciences, 7: 139-146.

Watts, A.B., Weissel, J.K., and Davey, F.J., 1977, in Talwani, M. and Pittman, W.C., eds., Island Arcs, Deep Sea Trenches and Back-arc Basins, pp. 419-427.

Watts, A.B., Weissel, J.K., Duncan, R.A., Larson, R.L., 1988, Origin of the Louisville Ridge and its relationship to the Eltanin Fracture Zone System, Journal of Geophysical Research, 93 (B4): 3051-3077.

Weissel, J.K., A.B. Watts, and A. Lapouille, 1982, Evidence for Late Paleocene to Late Eocene seafloor in the southern New Hebrides Basin, Tectonophysics, 87: 185-241.

Weissel, J.K. and Hayes, D.E., 1972, Magnetic anomalies in the Southeast Indian Ocean, in Antarctic Oceanology II - The Antarctic - New Zealand Sector, D.E. Hayes(ed.), Am. Geophys. Union., Ant. Res. Ser., 19: 165-196.

Weissel, J.K. and Hayes, D.E., 1977, Evolution of the Tasman Sea reappraised, Earth And Planetary Science Letters, 36: 77-84.

Weissel, J.K., Hayes, D.E., and Herron, E.M., 1977, Plate tectonics synthesis: the displacements between Australia, New Zealand, and Antarctica since the Late Cretaceous, Marine Geology, 25: 231-277.

Weissel, J.K. and Watts, A.B., 1979, Tectonic evolution of the Coral Sea Basin, Journal of Geophysical Research, 84(B9): 4572-4582.

Wessel, P. and Smith, W.H.F., 1996, A global, self-consistent, hierarchical, high-resolution shoreline database, Journal of Geophysical Research, vol. 101(B4), pp. 8741-8743

Whitmarsh, R.B., 1974, Some aspects of plate tectonics in the Arabian Sea, in R.B. Whitmarsh, O.E. Weser, D.A. Ross, et al., Init. Rep. D.S.D.P., Washington (U.S. Government Printing Office) 23: 527-535.

Wilson, D.S., 1996, Fastest known spreading on the Miocene Cocos-Pacific plate boundary, Geophysical Research Letters, 23(21): 3003-3006.

Wilson, D.S., and Hey, R.N., 1995, History of rift propagation and magnetization intensity for the Cocos-Nazca spreading center, Journal of Geophysical Research - Solid Earth, 100(B6): 10041-10056.

Windley, B.F., Razafiniparany, A., Razakamanana, T., and Ackermand, D., 1994, Tectonic Framework of the Precambrian of Madagascar and Its Gondwana Connections - A Review and Reappraisal, Geologische Rundschau, 83(3): 642-659.

Wood, R., Lamarche, G., Herzer, R., Delteil, J. and Davy, B., 1996. Paleogene seafloor spreading in the southeast Tasman sea. Tectonics, 15(5): 966-975.

World Data Bank #2 (CIA), Cartigraphic Database - Natural and manmade features of the world (digitized format), NTIS PB 271-874.

Yano, T., Wu, G., Tang, M., and Sha, S., 1994, Tectono-sedimentary development of backarc continental basin in Yunnan, southern China, Journal of southeast Asian Earth Sciences, 9: 153-166.

Young, U.D., Voight, B. and Orkan, N.I., 1987, The Iceland Prospective: Its role in the development of plate tectonic theory, in 1987 Geodynamics Symposium, Silver Anniversary Celebration of Plate Tectonics, Texas A&M Univ., April 1987, pp. 96-98, abs.

Ziegler, P.A., 1982, Geological atlas of Western and Central Europe, Shell Int. Petr. Maatschappij B.V. 130 p.

Zolotukhin, V.V. and Al'mukhamedov, A.I., 1988, Traps of the Siberian Platform, *in* Macdougall, J.D. (ed) Continental Flood Basalts: Dordrecht, The Netherlands (Kluwer), 273-310.

Zonenshayn, L.P., Natapov, L.M., Savostin, L.A. and Stausuii, A.P., 1978, Recent plate tectonics of northeastern Asia in connection with the opening of the North Atlantic and Arctic Ocean Basins, Oceanology, 18(5): 550-555.

References for paleomagnetic data

Beck, M.E., Jr., 1998, Jurassic and Cretaceous apparent polar wander relative to South America: Some tectonic implications, J. Geophys. Res., 104(B3):5063-5067.

Butler, R.F., Herve, F., Munizaga, F., Beck, M.E., Jr., Burmester, R.F., and Oviedo, E.S., 1991, Paleomagnetism of the Patagonian plateau basalts, southern Chile and Argentian, J. Geophys. Res., 96: 6023-6034.

Geuna, S.E. and Vizan, H., 1998, Early Cretaceous pole for Cordoba Province (Argentian): Revision of previous studies and implications for the South American database, Geophys. J. Int., in press.

Grunow, A.M., 1995, Implications for Gondwana of new Ordovician paleomagnetic data from igneous rocks in southern Victoria Land, East Antarctica, Journal of Geophysical Research - Solid Earth, 100(B7): 12589-12603.

MacDonald, W. and Opdyke, N., 1974, Triassic paleomagnetism of northern South America, AAPG Bull., 58: 208-215.

Meert, J.G., and Vandervoo, R., 1994, The Neoproterozoic (1000-540 Ma) Glacial Intervals - No More Snowball Earth?, Earth and Planetary Science Letters, 123(1-4): 1-13.

Meert, J.G., Van der Voo, R., and Payne, T.W., 1994, Paleomagnetism of the Catoctin volcanic province: A new Vendian-Cambrian apparent polar wander path for North America, Journal of Geophysical Research, 99(B3): 4625-4641.

Montes-Lauar, C., Pacca, I., Melfi, A., and Kawashita, K., 1995, Late Cretaceous alkaline complexes, southeastern Brazil: Paleomagnetism and geochronology, Earth Planet. Sci. Lett., 134: 425-440.

Niocaill, C.M., and Smethurst, M.A., 1994, Palaeozoic palaeogeography of Laurentia and its margins: A reassessment of palaeomagnetic data, Geophysical Journal International, 116:715-725.

Schult, A. and Guerreiro, S., 1979, Paleomagnetism of Mesozoic igneous rocks from the Maranhão basin, Brazil, and the time of opening of the south Atlantic, Earth Planet. Sci. Lett., 42: 427-436.

Somoza, R., 1994, South American reference pole for the mid-Cretaceous: Further constraints in the interpretation of Andean paleomagnetic data, Geology, 22: 933-936.

Torsvik, T.H., Smethurst, M.A., Van der Voo, R., Trench, A., Abrahamsen, N., and Halvorsen, E., 1992, Baltica: A synopsis of Vendian-Permian palaeomagnetic data and their palaeotectonic implications, Earth Science Reviews, 33(2): 133-152.

Torsvik, T.H., Tait, J., Moralev, V.M., McKerrow, W.S., Sturt, B.A., and Roberts, D., 1995, Ordovician palaeogeography of Siberia and adjacent continents, Journal of the Geological Society, 152(Part 2): 279-287.

Trench, A., and Torsvik, T.H., 1991, A revised Palaeozoic apparent polar wander path for southern Britain (eastern Avalonia), Geophysical Journal International, 104: 227-233.

U.S.G.S., 1998, GTOPO30. Elevations in GTOPO30 are regularly spaced at 30-arc seconds (approximately 1 kilometer).

Van der Voo, R., 1988, Paleozoic paleogeography of North America, Gondwana, and intervening displaced terranes: Comparisons of paleomagnetism with paleoclimatology and biogeographical patterns., Geological Society of America Bulletin, 100:311-324.

Van der Voo, R., 1993, Paleomagnetism of the Atlantic, Tethys, and Iapetus Oceans, Cambridge University Press, Cambridge, 411 p.

Vilas, J., 1974, Palaeomagnetism of some igneous rocks of the Middle Jurassic Chon-Aike Formation from Estancia la R3econquesta, Province of Santa Cruz, Argentina, Geophys. J. R. Astron. Soc., 39: 511-522.

Wilson, D.S., 1996, Fastest known spreading on the Miocene Cocos-Pacific plate boundary, Geophysical Research Letters, 23(21): 3003-3006.

Wilson, D.S., and Hey, R.N., 1995, History of rift propagation and magnetization intensity for the Cocos-Nazca spreading center, Journal of Geophysical Research - Solid Earth, 100(B6): 10041-10056.