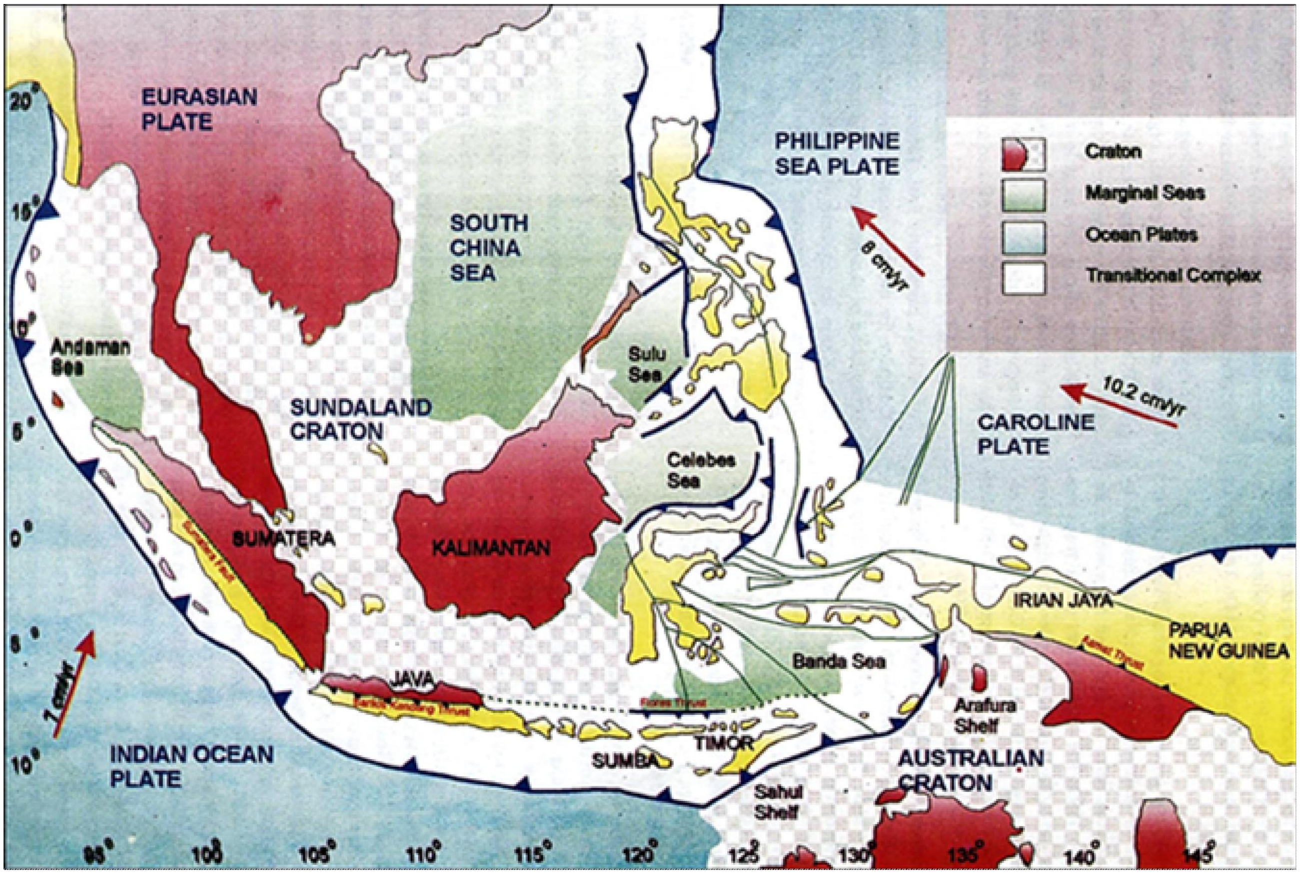
Bibliography of Indonesian Geology

BIBLIOGRAPHY OF THE GEOLOGY OF INDONESIA AND SURROUNDING AREAS

Edition 7.0, July 2018

J.T. VAN GORSEL

I. REGIONAL GEOLOGY



(Simandjuntak, 2000)

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I. REGIONAL GEOLOGY

Chapter I of the Bibliography 7.0 contains 316 pages with >2405 titles of papers on the regional geology of Indonesia and adjacent SE Asia- Pacific, as well as general papers that do not fit in any of the regions or specialist categories that are listed separately. It is subdivided in five chapters, I.1- 1.5.

I.1. and I.2. Indonesia and SE Asia Regional Geology

Chapters I.1 and I.2 include >1530 references of textbooks and papers on the regional geology and tectonics of Indonesia and SE Asia. Chapter I.1 focuses on the regional geology of Indonesia, while chapter I.2 includes more of the regional geology of the broader SE Asia region and of the SE Asia mainland (Malaysia, Thailand, Myanmar, Vietnam, SW China, etc.). The reason for including the latter in this Indonesia-focused bibliography is that many of the geological zones of mainland SE Asia continue into parts of western Indonesia, so the tectonic history and stratigraphy of these areas are relevant to understanding parts of Sumatra, Borneo, etc..

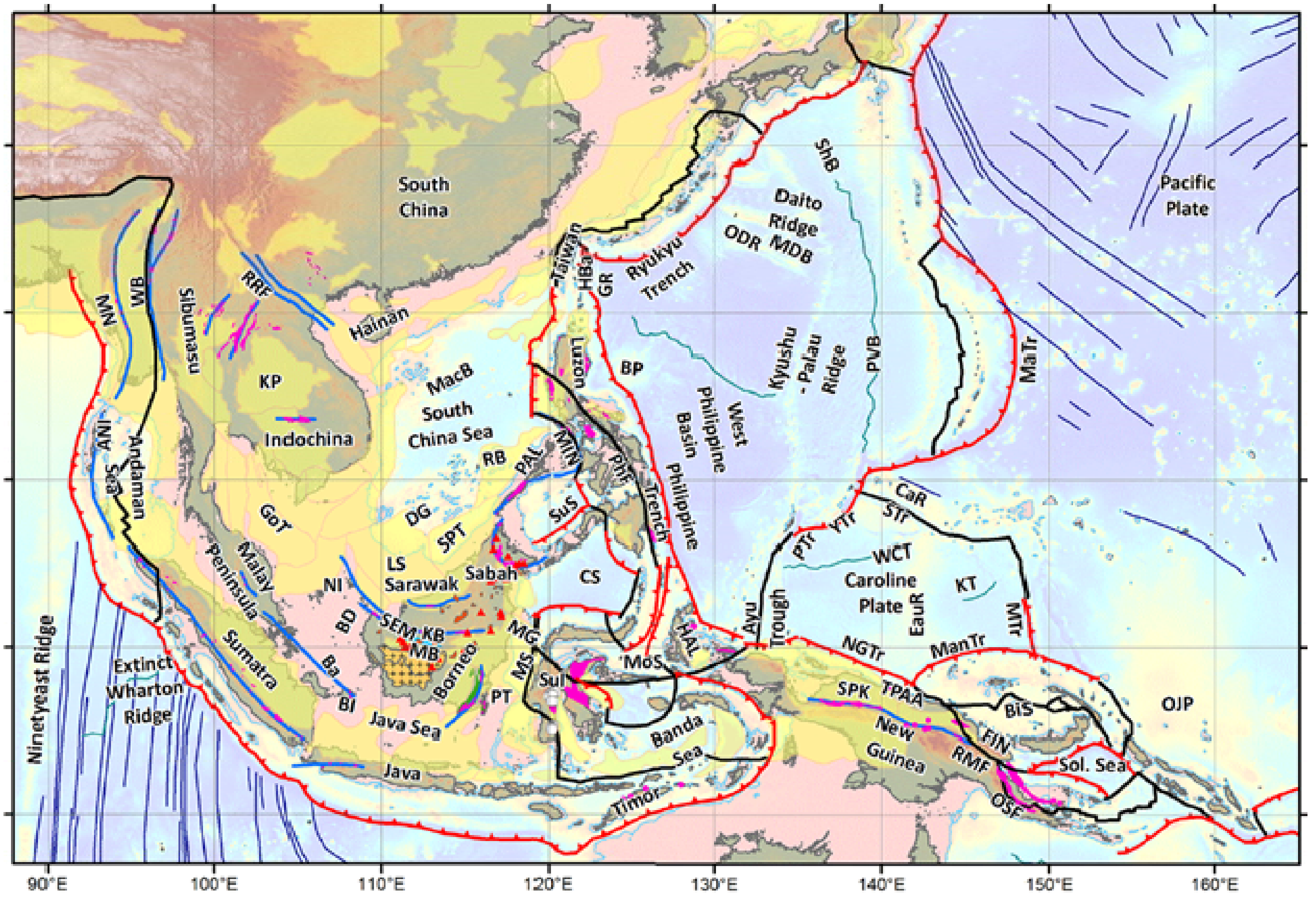
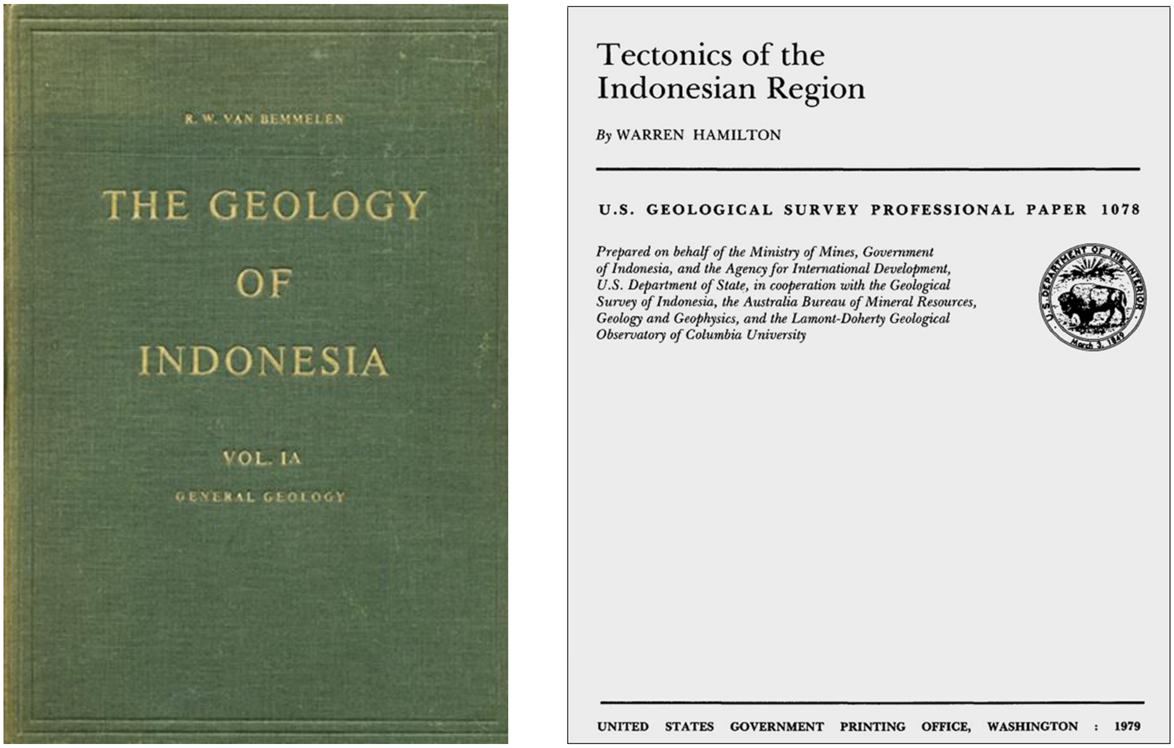


Figure I.1.1. Present-day subduction zones, oceanic basins and major ophiolites in the SE Asia- New Guinea-West Pacific region (Zahirovic at al. 2014).

Numerous papers on Paleozoic- Mesozoic faunas and floras are also included here, especially those that help identify faunal and floral provinces that are indicative of paleoclimate and latitudinal positions of plates through time. Paleobiogeographic patterns and tectonostratigraphic successions are key tools for underpinning and constraining plate reconstructions of SE Asia, especially in the pre-Cenozoic.

Although the Van Bemmelen (1949) Geology of Indonesia book is generally viewed as the most significant textbook on the geology of Indonesia, its tectonic interpretations are outdated (and were actually already controversial at the time of publication).

The pioneering book and maps of Warren Hamilton (1979) *'Tectonics of the Indonesian Region*' (U.S. Geol. Survey Prof. Paper 1078) were the first interpretations of Indonesia tectonics in a plate tectonic framework and remains an unrivalled masterpiece. The book still contains some of the most comprehensive descriptions of the geology of Indonesia, and many of Hamilton's interpretations have withstood the tests of time.



R. W. VAN BEMMELEN

THE GEOLOGY
OF
INDONESIA

VOL. IA
GENERAL GEOLOGY

Tectonics of the
Indonesian Region

By WARREN HAMILTON

U.S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 1078

Prepared on behalf of the Ministry of Mines, Government of Indonesia, and the Agency for International Development, U.S. Department of State, in cooperation with the Geological Survey of Indonesia, the Australia Bureau of Mineral Resources, Geology and Geophysics, and the Lamont-Doherty Geological Observatory of Columbia University

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1979

Figure I.1.2. Two key textbooks on the geology of the indonesian region.

The main patterns of the geologic evolution of SE Asia are reasonably well understood, but many details and exact timing of events are still debated.

Indonesia/ SE Asia Basement blocks, suture zones

The area of the Indonesian archipelago and surrounding SE Asia- Australia/ New Guinea is a very complex mosaic of continental and microcontinental blocks, active and extinct volcanic arcs and associated subduction complexes (commonly with ophiolites, marking suture zones where former ocean basins were consumed) and old and young oceans and marginal ocean basins (Figure I.1.3)

The patterns of Pretertiary Basement are masked and complicated by later evens, like the formation of widespread Tertiary basins (mainly since Middle-Late Eocene time), breakup of margins by marginal basins creation, metamorphism due to magmatic activity, offsets by several large strike slip fault zones, etc.

Mainland SE Asia is also a complex collage of continental blocks, all of which probably once part of the Gondwana supercontinent, but separated from the NW Australia- New Guinea margin during successive episodes of Devonian- Jurassic rifting and seafloor spreading (S China, Indochina, Sibumasu, W Burma, etc.). After Northward drift from the S Hemisphere to equatorial latitudes (recorded by changes in flora and fauna from colder to warmer climates), the various Gondwanan-origin blocks amalgamated with mainland Eurasia during multiple Late Paleozoic- Eocene episodes of collision.

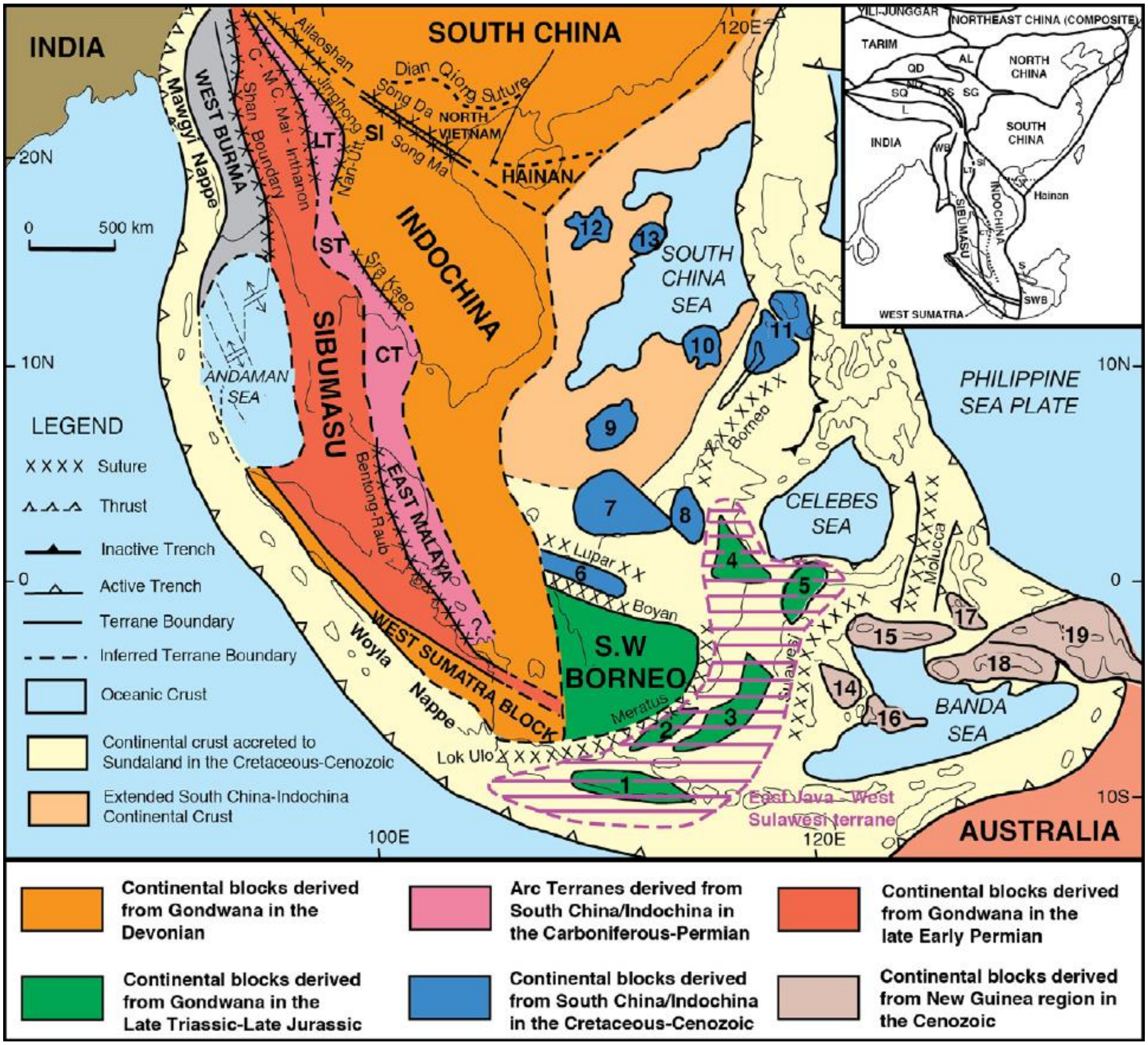


Figure I.1.3. Recent interpretation of SE Asia- Indonesia basement terranes. It differs from earlier versions mainly in recognition of West Sumatra, SW Borneo and Semitau blocks as separate units from the Sibumasu-East Malaya- Indochina blocks that amalgamated to form the Sundaland core in Triassic time (Metcalfe 2013).

Multiple suture zones that separate continental blocks or continental and and arc volcanic terranes have been recognized across SE Asia. Most of these sutures represent former subduction zones along the South Eurasia and West Pacific margins, and many contain ophiolitic rocks that represent remnants of upper mantle, oceanic crust and pelagic sediment cover of closed former ocean basins (Paleo-Tethys, Meso-Tethys, Neo-Tethys/ Indian Ocean). These are accompanied by volcanic-plutonic arc systems and intensely deformed accretionary complexes.

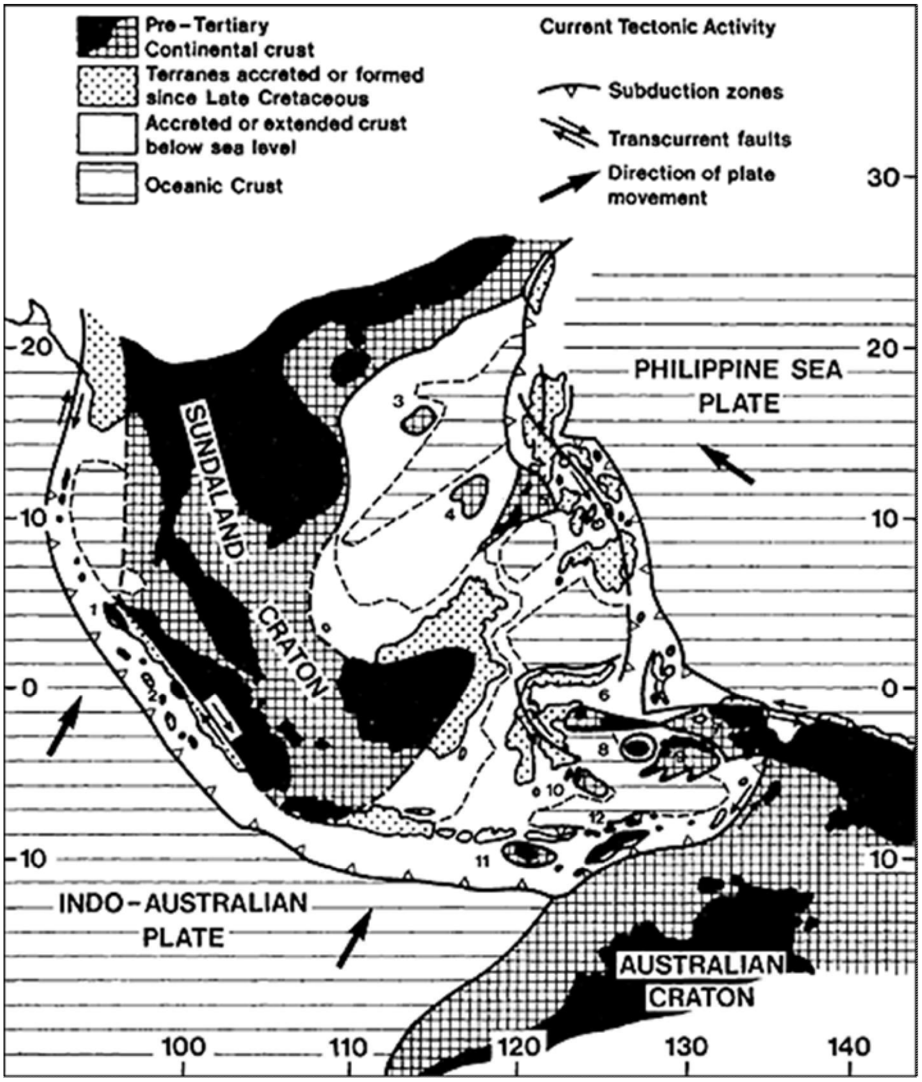


Figure I.1.4. Tectonic setting of Indonesia between two major Pretertiary continental blocks (Sundaland/ Eurasia and Australia- New Guinea) (Barber 1985).

Figure I.1.4. summarizes the main tectonic elements of the greater Indonesian region:

1. Two major, converging Pretertiary continental blocks: Sundaland/ Eurasia in the NW and Australia- New Guinea in the SE;
2. Cretaceous and younger accretionary crust along the Sundaland and New Guinea margins (including the Woyla terranes of West Sumatra, East Java, Meratus Range and further East in East Kalimantan, West Sulawesi, all of North Borneo;
3. Cenozoic oceanic marginal basins (South China Sea, Sulu Sea, Celebes Sea (possibly including North Makassar Straits) and North and South Banda Seas)
4. Microcontinental blocks that rifted off both Sundaland (Palawan (4) , Sumba (11), Timor allochthon (12));
5. Microcontinental blocks that rifted off Australia- New Guinea (Banggai-Sula (6), Seram-Buru (9), etc.)
6. Major oceanic plates: northward subducting Indian Ocean in the SW and the westward subducting Pacific Ocean/ Philippine SeaPlate in the NE.

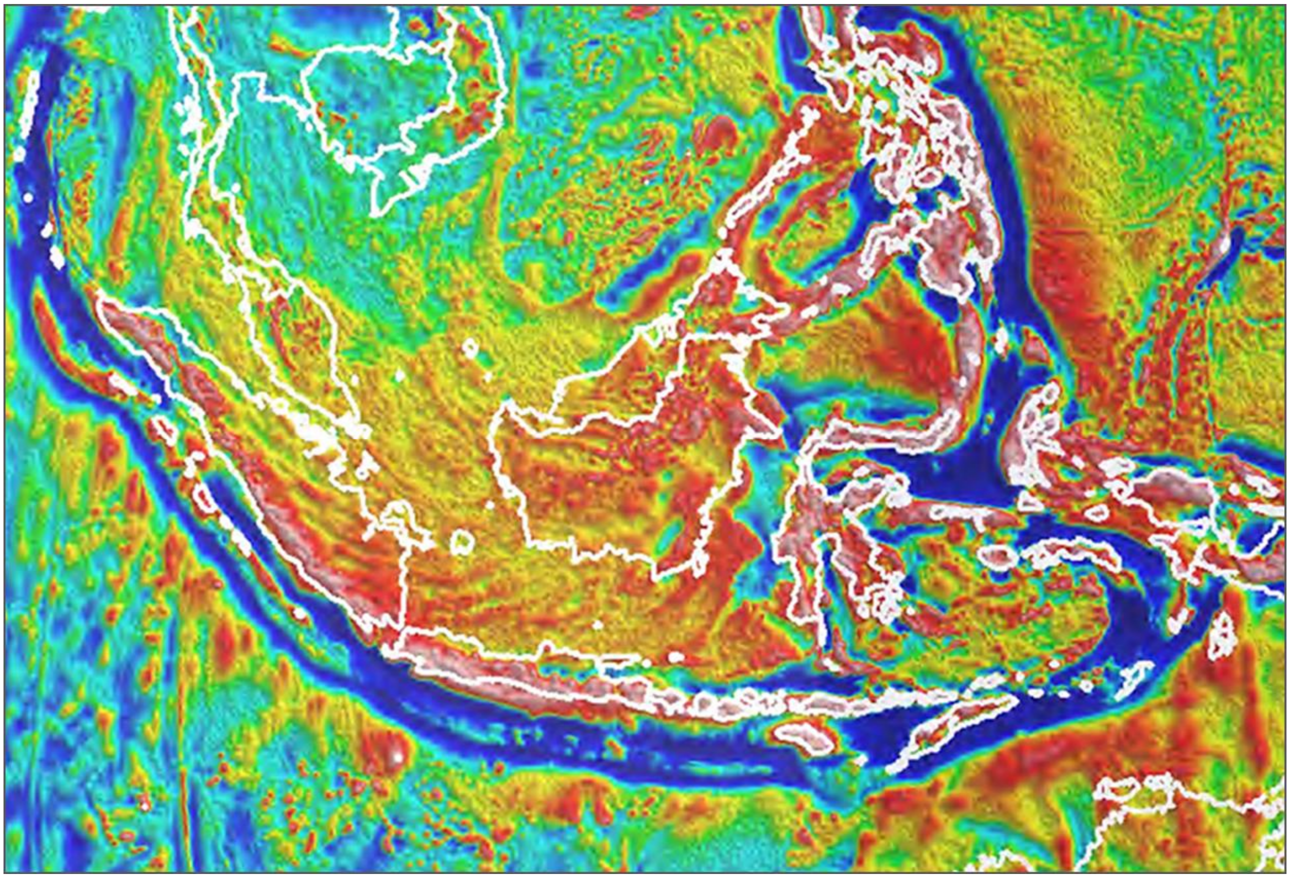


Figure I.1.5. Free Air gravity of the Indonesian region. Blue= low gravity= areas of downgoing plates (trenches- accretionary prisms. (SEATIGER Brochure 2009) .

Western Indonesia ('Sundaland') is a complex of Late Paleozoic- Triassic continental blocks that amalgamated by the closing of the Paleotethys Ocean suture in Late Triassic time. After a long period of relative quiescence Sundaland was affected by widespread Middle Eocene- Early Miocene rifting, creating many hydrocarbon-bearing sedimentary basins (e.g. Hutchison 1984, 1986, Hall and. Morley, 2004, Sunarjanto et al. 2008, Pubellier and Morley 2014, Rangin 2015).

The present-day configuration of Eastern Indonesia formed much later, and is still evolving. It is a collage of relatively small continental microplates derived from the Australia- New Guinea Gondwanan margin, remnants of extinct volcanic arcs, active volcanic arcs and Cenozoic oceanic marginal basins.

Marginal basins and 'sliver terranes'

Today the ~7400 km long East Asian/ West Pacific active margin is an area of extensive marginal oceanic basins, from North of Japan to SE Asia (Tamaki and Honza 1991). They formed by back-arc extension, presumably during rollback of the subducting Pacific Ocean slab(s), collapsing and hyperextending the overriding plate towards the retreating hinge line.

In several examples the extension and spreading appeared to have initiated by 'splitting' of an active magmatic arc system. If this arc was in an active continental margin setting, this process will remove the entire forearc area from the continental margin, which then becomes an isolated continental sliver terrane (e.g. Palawan, West Sulawesi, Sumba- Timor Banda Terrane, Sulu Ridge, Sinta Ridge, etc.)

The majority (possibly all) of the known Indonesian marginal basins has already been reduced in area by subduction along one or more of their margins. Older marginal basins may already have been consumed completely ('Proto- South China Sea?).

Marginal basins may be flanked by zones of rifted continental or accretionary crust with sedimentary basins, formed during the same rollback/ extensional episodes (e.g. 400-800 km wide rifted zones along the South China Sea; Clift et al. 2002).

Cenozoic marginal basins in and around Indonesia, with ages of oceanic crust formation, are shown on Figure I.1.6. They include:
- South China Sea ~32-15 Ma *(Barckhausen and Roeser 2004, Song and Li 2015, Sibuet et al. 2016)*;
- Sulu Sea ~18-15 Ma (late Early Miocene) *(Lewis 1991, Hutchison 1992, 2005)*;
- Celebes Sea- Makassar Straits:~48-35 Ma (M-L Eocene) *(Rangin et al. 1989, Gaina and Muller 2007)*;
- North Banda Sea ~13-7 Ma (Middle- Late Miocene) *(Hinschberger et al. 2000)*
- South Banda Sea 6.5- 3.5 Ma (latest Miocene- Early Pliocene) *(Hinschberger et al. 2001)*;
- Moluccas Sea Eocene? (seafloor now already mostly subducted).

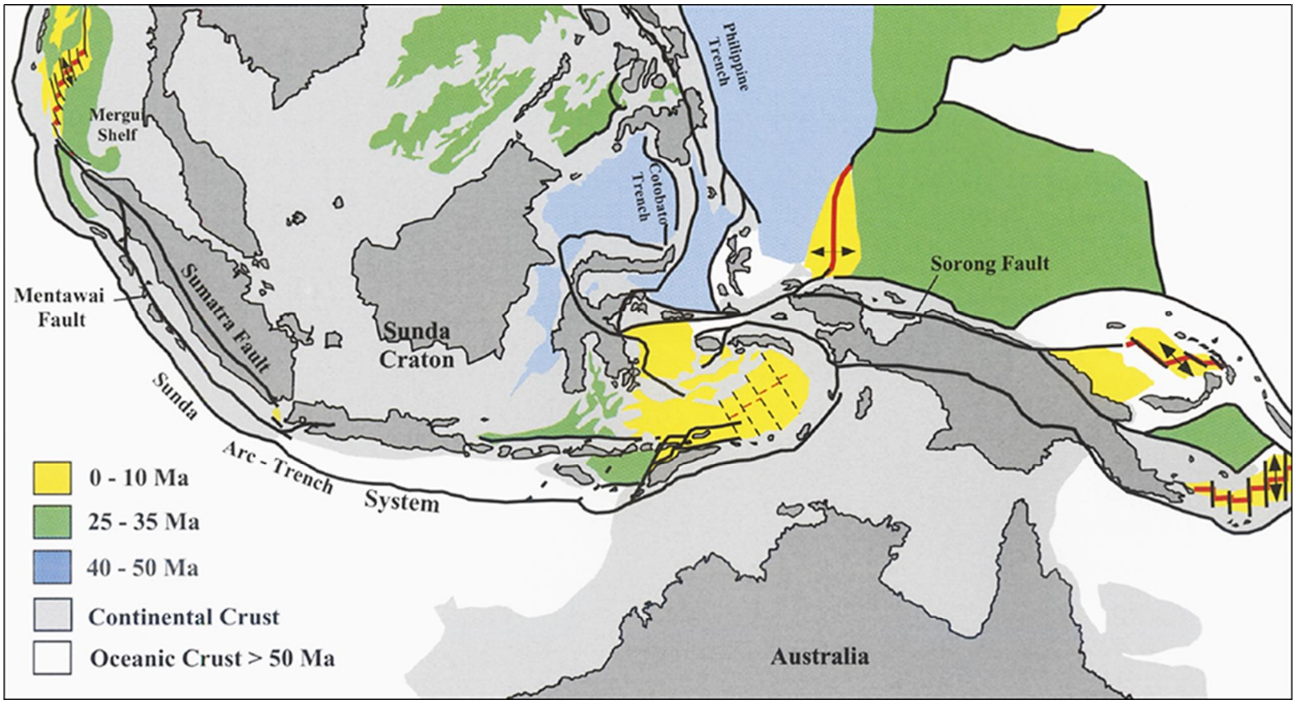


Figure I.1.6. marginal oceanic basins in the Indonesia- New Guinea region and their ages (Harris, 2003). The Sulu Sea shown here as Oligocene is more likely of Miocene age, the South China Sea seafloor spreading was in Late Oligocene- Early Miocene.

Tectonic models of the Indonesian region

Numerous authors have attempted syntheses of geologic and tectonic evolution of the Indonesian Archipelago, dating back to the 1800's. (Earle 1845, Volz 1912, Elbert 1913, Abendanon 1914, 1915, etc.). (Figure I.1.7). Unfortunately all of the pre-1970's tectonics models should now be viewed as largely obsolete, and mainly of historic interest, although many of these models were driven by perfectly valid geological observations.

Many of the earliest tectonic theories proposed for Indonesia/ SE Asia were reviewed in Blom 1934 and Umbgrove (1934, 1938) and Katili (1971). Umbgrove (1938) lamented that *'in the last decades at least one or two new hypotheses have been suggested every year to explain the structure of the East Indian Archipelago*'. Despite Umbgrove's lament, this trend has continued until today, and new models continue to be published every year (see Plate reconstructions chapter below).

Many of the early 1900's discussions on tectonics of the Indonesian Archipelago involved geosynclines or discussed the merits of Wegener's theory of continental drift, a concept that had been around since 1915, but was not generally accepted until around 1968.

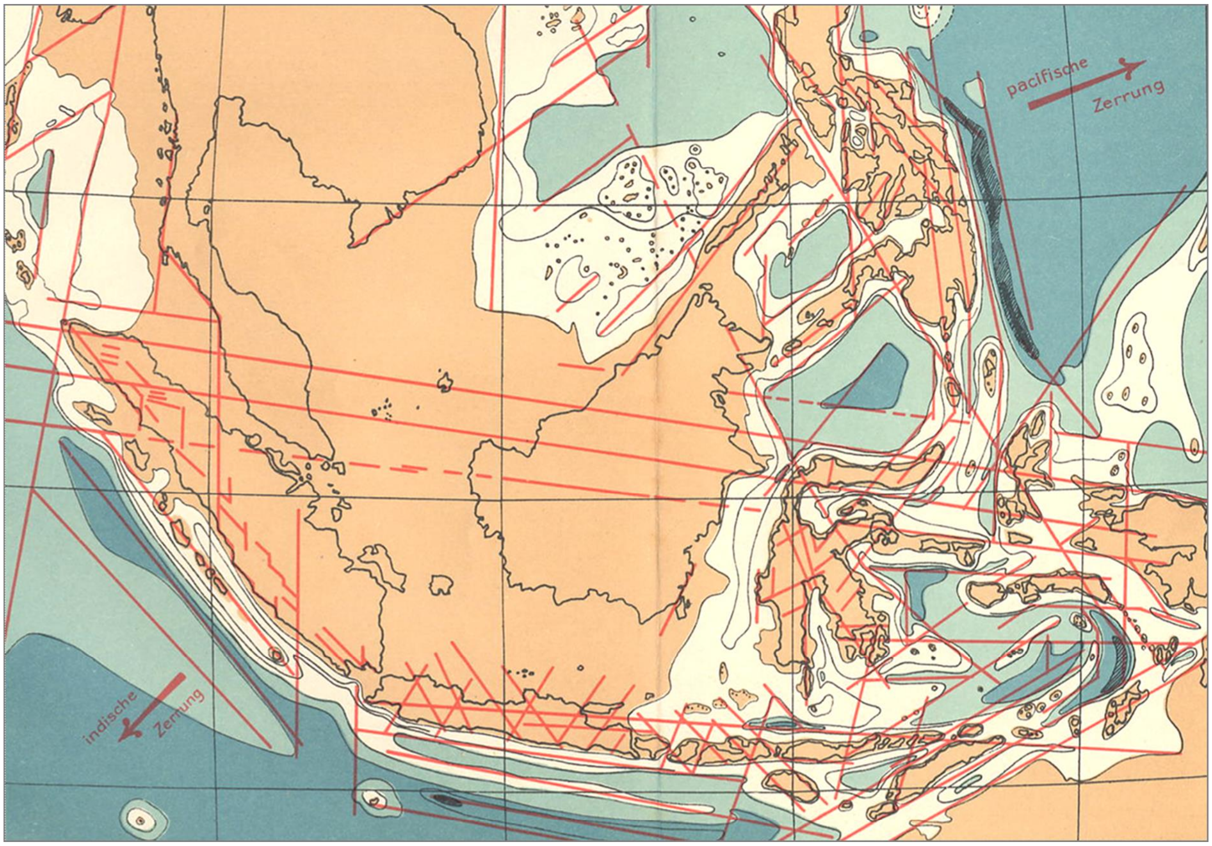


Figure I.1.7. Example of old tectonic model for Indonesia (Volz, 1912). The suggested regional fault patterns have little or no basis in reality.

Many of the European geologists working in the Indonesian region in the 1920's- 1930's were early 'mobilists', believing in Wegener's then-controversial model of horizontal plate movements. and recognizing the Indonesian region as an area between the converging Asian and Australian continents, as initially suggested by Wegener himself in 1915, 1922 (Wing Easton 1921, Brouwer, Molengraaff, Van Waterschoot Van der Gracht (1928), Smit Sibinga 1927, 1933; Figure I.1.8), Escher (1933), etc.). However, other prominent Dutch structural geologists of that era (Umbgrove 1935, Van Bemmelen 1933, 1949, etc., and Kuenen 1950) were skeptics of continental drift.

Mention should be made here of the theories of the 'grand master' of the geology of Indonesia, R.W. van Bemmelen. He oppposed continental drift and later also plate tectonics, until his death in 1983. Instead he proposed his 'undation theory' in 1932, which he continued to promote this, with some modifications, until 1978. This theory explained all tectonics as the result of vertical, mantle-driven uplifts, followed by lateral gravitational sliding of the cover of uplifted 'undations'. This theory never found much acceptance in the geological world.

For more details on the history of Wegener's and Van Bemmelen's theories in the 'Netherlands Indies' see Barzilay (2008, 2009, 2010).

Many newer tectonic models have been proposed since the the 'Pre-Plate tectonics era', and new models continue to be proposed and debated today. Whilst these are all valuable exercises in integrating large amounts of geologic data, the long-term 'success rate' of any (plate-)tectonic modles of the Indonesia/ SE Asia region has not been very high, although elements of many of them continue to be accepted.

But much progress has been made, especially after the advent of plate tectonics theory and plate reconstruction models since the 1970's. But parts of Indonesia's geology and tectonic history remain poorly understood and subject to continued debates, so it is unlikely we have reached a 'final answer' today.

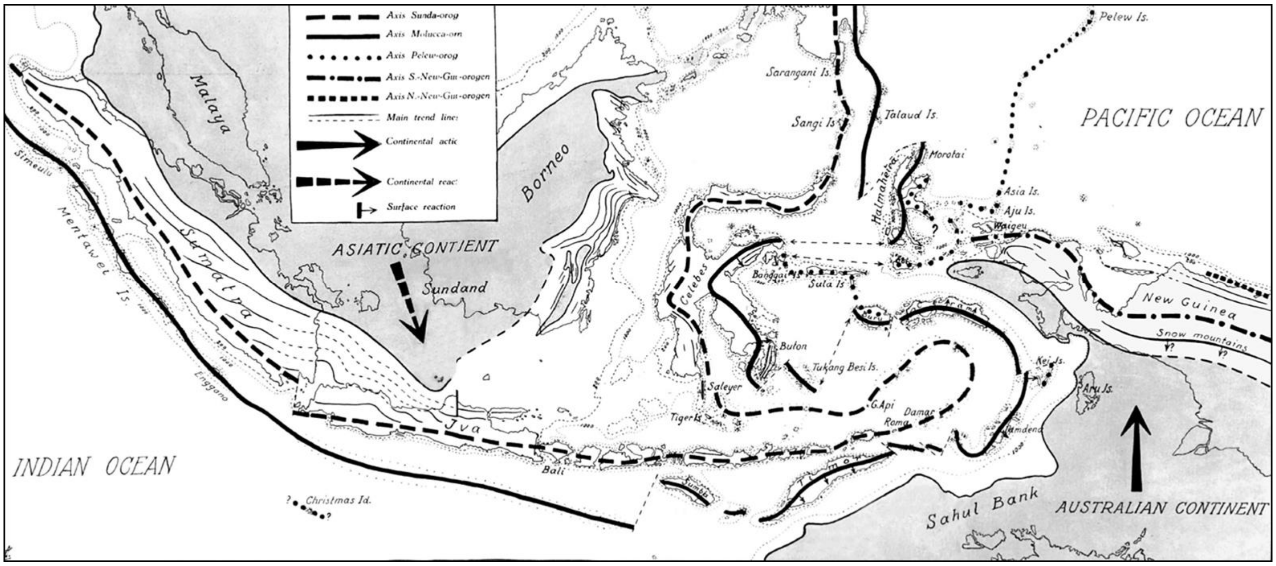


Figure I.1.8. Early depiction of orogenic belts in the Indonesian region, and 'Wegener style' suggestion of converging Asian and Australian continents (Smit Sibinga 1933).

Current tectonic models agree on the convergence of the three major tectonic plates in the Indonesian region (Eurasia, Indian Ocean-Australia- New Guinea and Pacific), and that most or all of the continental blocks in SE Asia rifted from the North Gondwana margin at different times. However, models vary in many other details. Areas that appear to generate the most debate include the recent history of areas in Eastern Indonesia (Timor, Seram, Sulawesi, the Birds Head of West Papua, etc.), but also the Pretertiary history of Western Indonesia (Sumatra, Java, Kalimantan) will probably yield surprises with further geological and geophysical studies.

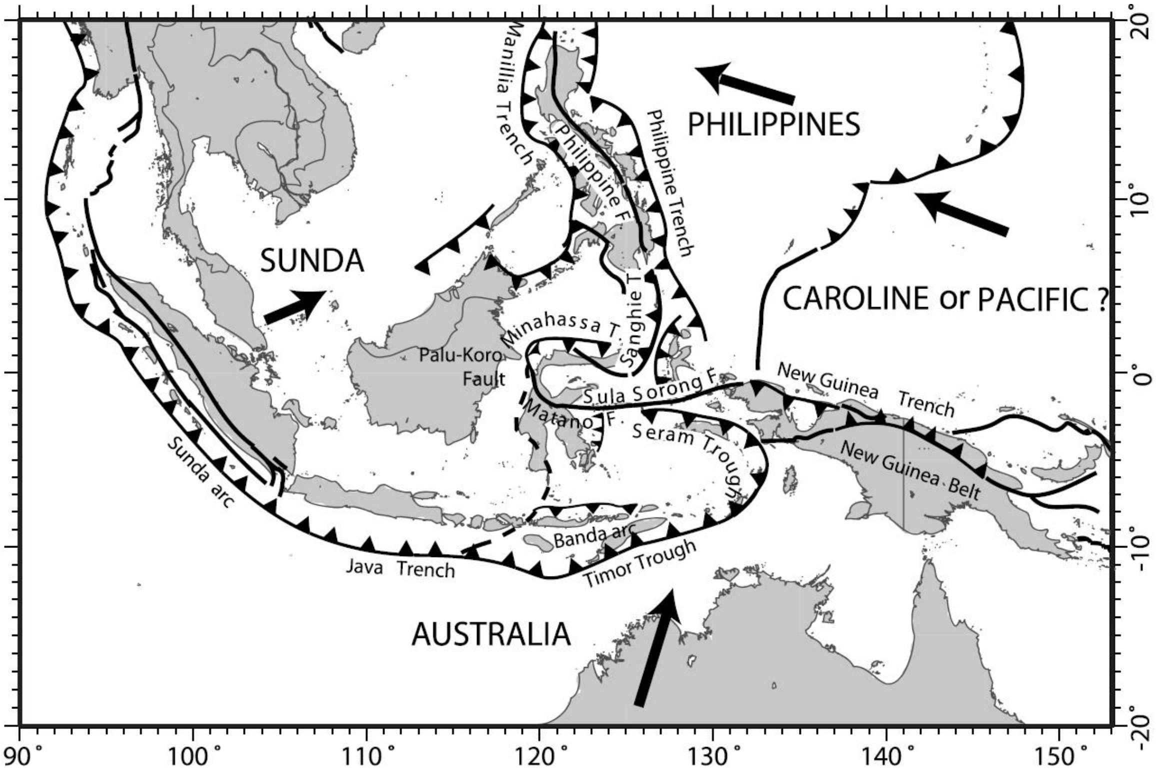


Figure I.1.9. Active subduction zones and major fault zones of the Indonesian region, the junction of three major tectonic plates: (1) relatively stable Sunda (Eurasia), (2) North-moving Australia- Indian Ocean and (3) West-moving Philippine Sea- West Pacific Plates. Arrows indicate major plate movement directions and velocities relative to Eurasia (Socquet et al. 2006).

Present-day major tectonic plates and GPS plate motions

Today Indonesia is at the convergence of three major tectonic plates: Eurasia in the West, Pacific (Philippine Sea) in the NE and Australia in the SE. The East Sulawesi- Banda Sea region is the 'triple-junction', where the three plates converge (Figure I.1.9).

Since ~1993 GPS satellite positioning technology has allowed determination of any position of any location in the world with <2-3mm accuracy. Differences in distance between GPS stations over time can now be measured, which then allows reconstruction of relative movement rates of these stations, and thus determine directions and relative surface velocities of tectonic plates.

Plate boundaries derived from present-day relative plate motion are not necessarily the same as historic plate boundaries or tectonic sutures. For instance:

1. the Timor Trough was the plate boundary between the North-moving Australia- Indian Ocean plate and the Eurasia/Banda Arc plate for 10's of millions of years, but since it locked up ~3 Million years ago, Timor and parts of the Banda Arc and Banda Sea now move largely with the Australian Plate (e.g. Fig. I.1.10).
2. much of the oblique convergence between the Indian Ocean Plate and Eurasia in Sumatra is taken up by the Great Sumatra Fault zone, which thus acts as a present-day plate boundary. However, this fault zone appears to follow the thermally weakened zone of the modern volcanic arc and probably does not reflect an older basement terrane boundary.

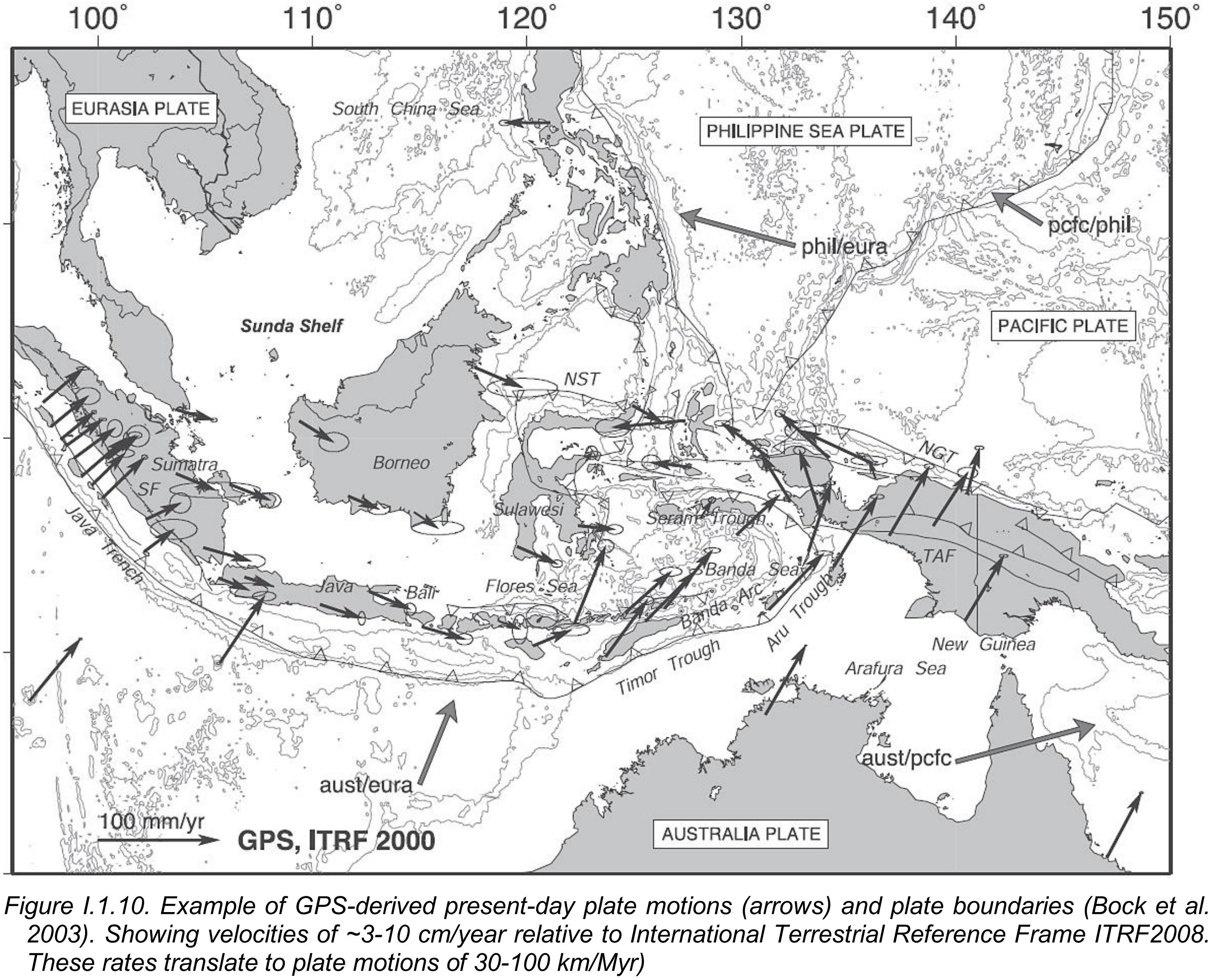


Figure I.1.10. Example of GPS-derived present-day plate motions (arrows) and plate boundaries (Bock et al. 2003). Showing velocities of ~3-10 cm/year relative to International Terrestrial Reference Frame ITRF2008. These rates translate to plate motions of 30-100 km/Myr)

A selection of key papers of GPS studies in the Indonesian region is shown in the table below.

Present-day earthquake hypocenters and Seismic tomography

An important component in the recognition of major fault zones, and in particular subduction zones, is the distribution patterns of earthquake hypocenters (e.g. Hamilton 1974).

The discovery of belts of deep earthquake hypocenters in lower crust and mantle that form landward dipping zones under active continental margins is commonly attributed to Russian and Japanese seismologists Benioff and Wadati in the 1950's. However, this pattern of landward dipping planes of deep earthquake hypocenters (now known to reflect subducting slabs of oceanic lithospheric plates) was already known in the Indonesian region in the 1930's (Visser 1937, Berlage 1937, 1939; Figure I.1.11).

Also in the 1930's the dipping earthquake belts were noted to be associated with active volcanic arcs and with strong negative gravity anomalies outboard of the arcs, which was first discovered by 'the diving Dutchman' Vening Meinesz (1933, 1934), who interpreted these as zones of 'crustal downbuckling' (Escher 1933, Visser 1937). These 1930's geologists in Indonesia came very close to discovering plate subduction, a key component of the revolutionary plate tectonics theory of the 1960's.

Significant later contributors on earthquake distribution patterns in the Indonesian region include Fitch, Cardwell and Isacks, McCaffrey, Hamilton, Das, Schoffel, Spicak, and others.

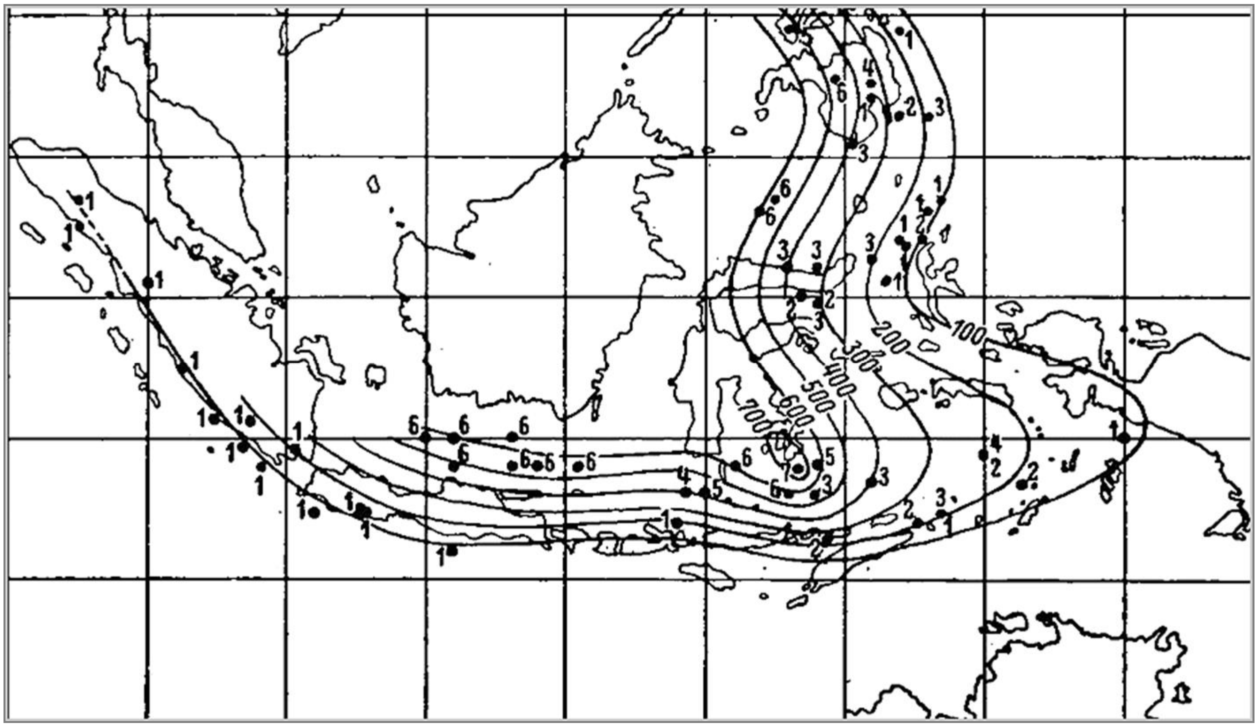


Figure I.1.11. Depths of earthquake epicenters along land-ward dipping plane, now known as Wadati-Benioff zone (Berlage 1937). North of Java deep earthquakes down to ~6km, no deep earthquakes under Sumatra.

The relatively recent technology of 'seismic tomography' (which is a high-resolution 3-D seismic velocity model of the mantle derived from now a large database of earthquake hypocenter locations and and travel time data) helps visualize the presence of relatively high-velocity and relatively cool subducted slabs in the mantle.

Key papers for regional tomography studies in the Indonesian region include Puspito et al. (1993, 1995), Widiyantoro and van der Hilst (1996, 1997), Hafkenscheid et al. (2001), Replumaz et al. (2004), Tregoning and Gorbatov (2004), Richards et al. (2007), Spakman and Hall (2010), Widyantoro et al. (2011), Hall and Spakman (2015), Spakman, Huang et al. 2015), Wu and Suppe (2016, 2017), Van der Meer et al. (2018).

Numerous other papers use seismic tomography data to solve more local tectonic issues, like magma plumbing under volcanoes, slab rupture, etc..

Geologic history and Tectonostratigraphic belts

The older tectonic history of Indonesia is recorded in the geology of the various provinces. Unraveling the mosaic of continental plates, suture zones, volcanic arcs through time, etc., is an ongoing process. For more details on the plate tectonics of the region see also Chapter I.2- Regional geology of SE Asia.

One useful tool is the concept of tectonostratigraphic belts or provinces, which are zones with similar stratigraphies and unconformities that record geologic settings and tectonic events.

Long before the formulation of the theory of plate tectonics, the pattern of separate continental crustal blocks of Eurasian-affinity in West Indonesia and Australian-affinity blocks in East Indonesia, was recognized in the 1920's-1930's. An elegant depiction by Umbgrove (1938; Figure I.1.12) shows these provinces, and where they are separated by the 'Timor- Seram- East Sulawesi geosyncline'. (zone A in Fig. I.1.12.). This 'geosyncline' is characterized by continuous Permian- Cretaceous deep marine facies and is now understood to represent the suture zone of the Mesotethys Ocean that closed around Eocene time.

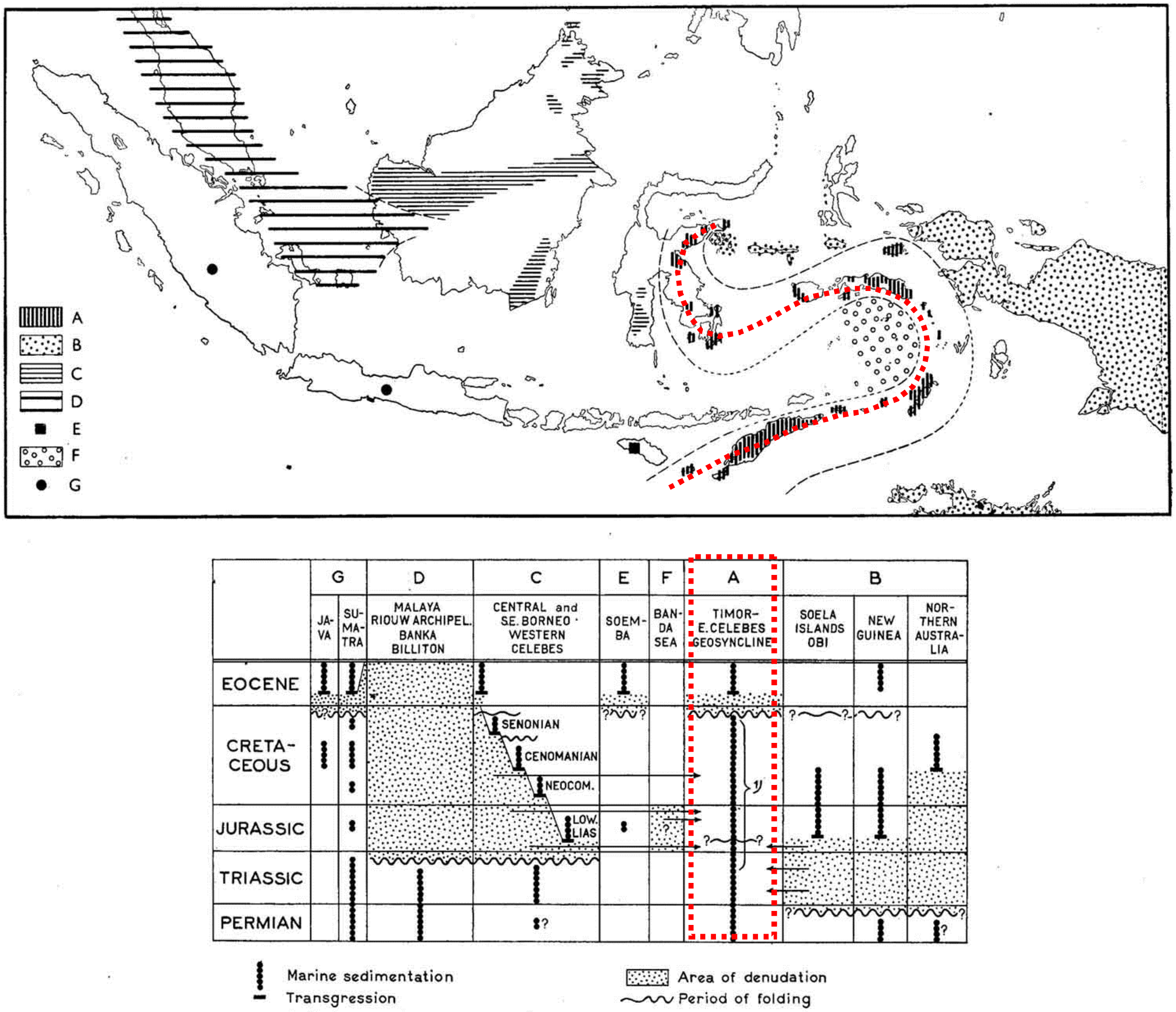


Figure I.1.12. Tectonostratigraphic provinces in Indonesia, as understood by Umbgrove (1938), identifying areas with similar Late Paleozoic- Eocene tectonostratigraphy. A = Timor- Seram- East Sulawesi geosyncline, B = New Guinea- North Australia- Sula Islands, C = Central and SE Borneo- W Sulawesi, D = Malay Peninsula, Riau archipelago- Bangka- Belitung, E= Sumba, F = Banda Sea, G = Java- Sumatra.

Paleomagnetic studies

Paleomagnetism is another powerful tool to constrain plate tectonic reconstructions. Many sedimentary and igneous rocks contain magnetically susceptile iron minerals that are still oriented in the direction of the magnetic field of the time in which the rocks formed. Paleolatitude of a rock sample can be derived from the inclination of the paleomagnetic orientation, and rotationsince rock formation from the declination.

Interpretation of paleomagnetic data is not always unequivocal or easy. Operators need to verify that:
- sample locations are representative for regional deformation, and are not affected by local deformation;
- the paleomagnetic signal was not reset during younger thermal events;
- correct paleo-pole position is used;
- correct polarity of the magnetic field (normal or reversed) at the time of rock formation is used.
- conclusions on paleolatitude are corrected for (1) depositional dip and (2) inclination shallowing (compaction of sedimentary packages may reduce dip angles, and thus underestimate paleolatitude).

A map of paleomagnetic directions in Indonesia was compiled by Mubroto et al. (1993). Another useful review of paleomagnetic data, including chapters on the Indonesia/ SE Asia region, is the book of Van der Voo (1993).

Pioneering studies in various parts the Indonesian region were by Haile (1977, 1978, 1979; Seram, Sumatra, Sulawesi, West Kalimantan), Nishimura & Suparka (1997), Sasajima et al. (1978, Sumatra, West and North Sulawesi), and Otofuji et al. (1981; North Arm Sulawesi).

Several independent paleomagnetic surveys concluded that 'South Sundaland' (Malay Peninsula - Borneo-East Sumatra) acted as a single block that underwent ~30- 50° counterclockwise rotation since the Late Cretaceous (most likely between Late Eocene- Middle Miocene) (Haile et al. 1977, Untung et al. 1987, Schmidtke et al. 1990, Fuller et al. 1991, 1999, Sunata and Wahyono 1991, Richter et al. 1999)). This Cenozoic CCW rotation of Borneo was incorporated in plate reconstruction models of Hall (1996 and others), but has since been questioned by Murphy (1988), Hutchison (2010), Tjia (2012) and Marshall (2016).

Paleomagnetic studies from the East Indonesian region include
- Sumba: clockwise rotations of Late Cretaceous flysch deposits by ~60°- 90° *(Nishimura et al. 1981; Otofuji et al. 1979, 1981 , Wensink 1994, 1997)*
- Timor (*Chamalaun 1977, Wensink and Hartosukohardjo 1987,1990, Panjaitan and Hutubessy 1997, 2004)*;
- East Sulawesi ophiolite *(Mubroto 1994)*,
- Halmahera- Banggai-Sula region *(Ali and Hall 1995, Ali et al. 2001, Obi)*;
- Birds Head West Papua *(Giddings et al. 1993)*;
- Misool *(Thrupp et al. 1987)*;
- Papua New Guinea: significant rotations of blocks in North New Guinea *(Klootwijk et al. 1987, 1993, 2003).*

Paleomagnetic data suggest significant, opposing rotations of the western parts of Sulawesi:
1. clockwise rotations of the North Arm in Middle Miocene- Pliocene *(Otofuji et al. 1981, Surmont et al. 1994)*;
2. 35-80° CCW rotation of the SW Arm since Middle Miocene *(Haile 1978, Sasajima et al. 1978, 1980, 1981, Panjaitan and Mubroto 1993, Panjaitan 2009)*.

Paleomagnetic work in Central Java on the Late Cretaceous(?)- Early Miocene 'Old Andesites' of the Southern Mountains suggest a 10° or more northward shift of the Southern Mountains volcanic arc (Mahfi 1984, Bijaksana et al. 2003, Ngkoimani 2005, 2006, Sunardi 2010).

Paleomagnetic data from mainland SE Asia suggest most Paleozoic rocks were probably affected by resets during Late Carboniferous and Cretaceous thermal events (Powell et al 1980, Metcalfe 1993, Van der Voo 1993).

Numerous additional papers from mainland SE Asia, The Philippines and the SW Pacific region are listed in the Bibliography.

Paleobiogeography as a plate reconstruction tool

Compositions of faunal and floral assemblages are partly controlled by paleoclimate/ paleolatitude at the time of deposition. Some taxa or groups are limited to warm, low latitudes, others are restricted to cooler, temperate climates and show 'anti-tropical' geographic distributions.

Faunas/ floras from comparable climate belts may show provinciality if they were geographically separated by land masses or deep oceans that impeded migrations between areas. Once the reasons for such paleobiogeographically-controlled provinciality of fossil assemblages are understood, they can then be used for paleogeographic reconstructions, they may then may provide constraints on the reconstruction of the mosaic of tectonic blocks in SE Asia.

Analyzing faunas-floras for paleobiogeographic patterns of plate tectonic significance can be tricky:

- Age: faunas/ floras may be different due to different ages, and are not necessarily from different paleogeographic provinces;
- Depositional facies: may be different because they are from different depositional facies, and do not necessarily relect different paleogeographic provinces;
- Taxonomy is quite important: closely related assemblages may have different sets of genus/ species names because fossils were identified by different specialists, but in reality are comparable. By contrast, imprecise determinations or lumping species into higher taxonomic units may suggest similarities between floras/ faunas, where in reality all species are different and represent different faunal/ floral provinces.
- Even when different faunas/floras reflect different paleoclimates this does not necessarily mean they are on different tectonic plates. Instead this may reflect a gradual paleolatitudinal transition on the same plate, or short-term climate warming-cooling events in the same area.

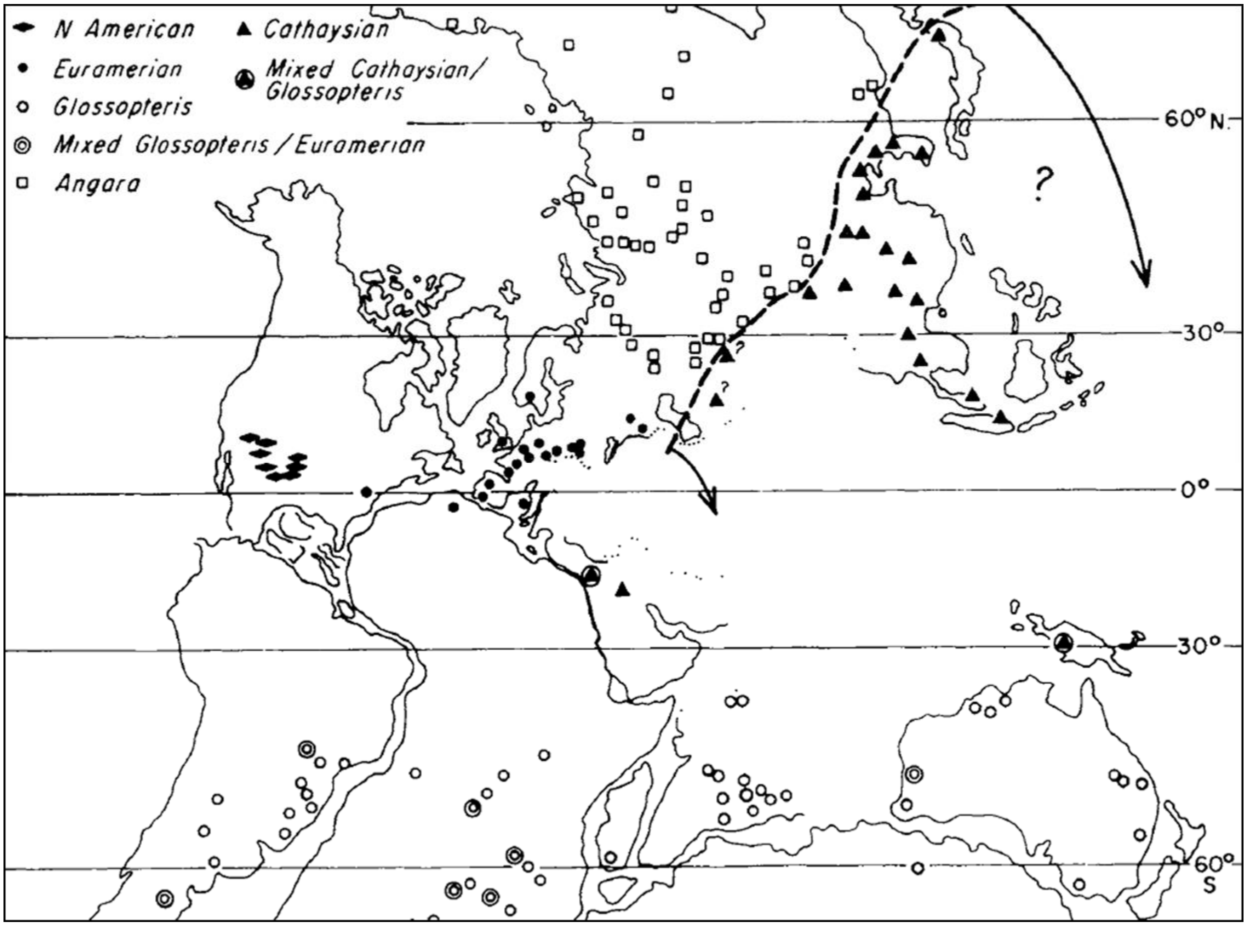


Figure I.1.13. Distribution of Late Carboniferous- Early Permian floras on a Permian reconstruction, showing Cathaysian floras in SE Asia and Gondwanan floras in Australia- India (Stauffer 1985).

Some of the most frequently used fossils with perceived paleobiogeographical significance include:

1. Early Permian floras with distinct low latitude 'Cathaysian'/ Eurasian assemblages and higher latitude/ Gondwanan *Glossopteris* floras (Figure 1.1.13; Asama 1976, 1984 and numerous papers). However, there are examples of mixed floras (West Papua), suggesting these floras may reflect paleoclimate zones rather than paleo-position on tectonic plates (e.g. Scotese 2011, Figure 1.1.14)

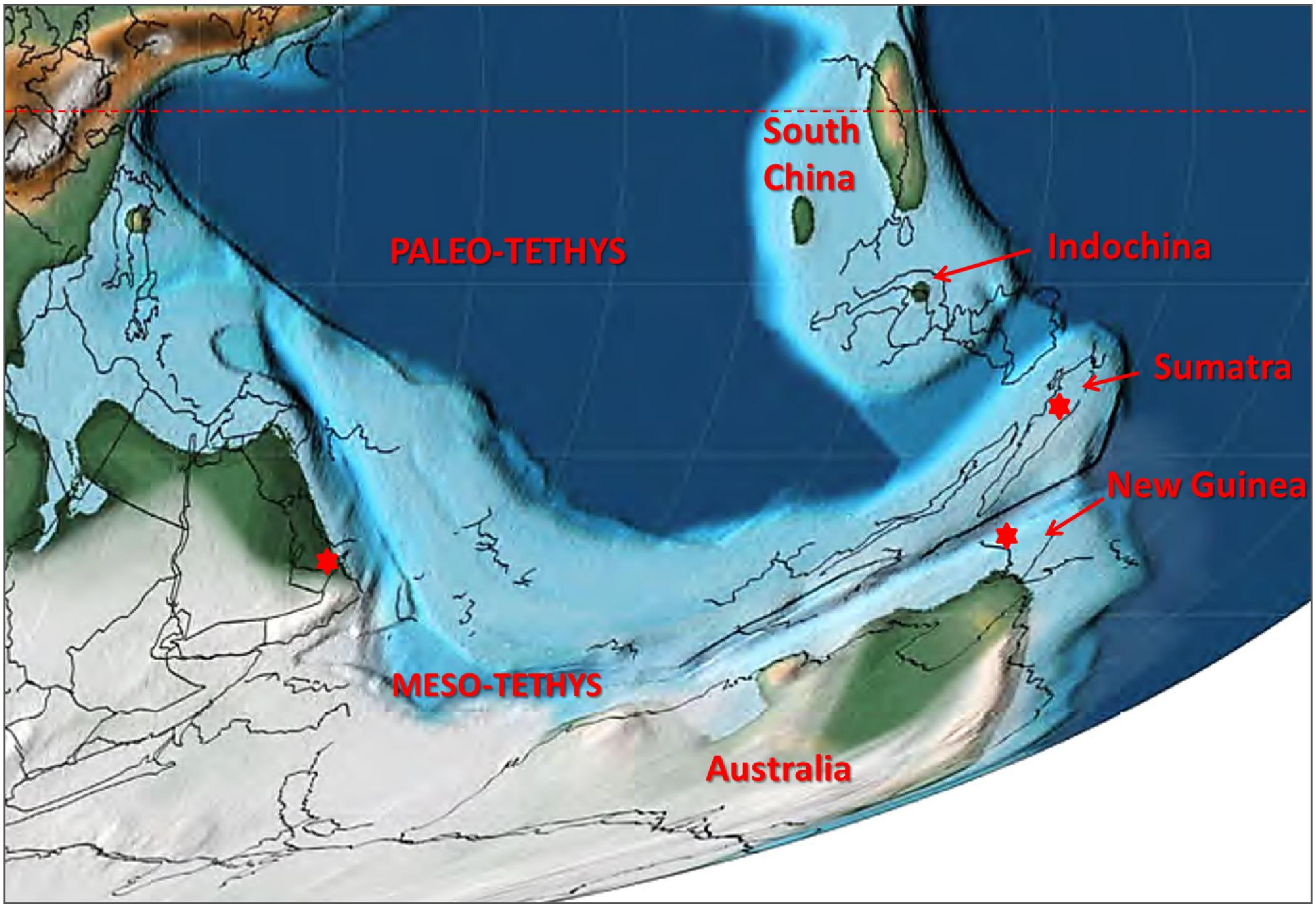


Figure I.1.14. Early Permian (Sakmarian; 297 Ma) reconstruction of Scotese (2014, Map 56), showing Sumatra as part of Cimmerian/ Sibumasu terranes, in process of rifting off Gondwana near New Guinea.

2. Permian brachiopod and fusulinid foraminifera assemblages assemblages (Fontaine et al. 1994, Fontaine 2002, Archbold 2000, 2001, Shen et al. 2013, etc.): define distribution and evolution of 'Cimmerian'/ Sibumasu terranes;

3. Late Triassic brachiopods: 'peri-Gondwanan'/ 'Southern Tethys assemblages with *Misolia* are found from Oman through the Himalayas to East Indonesia (Misool, 'Fatu Limestone' of Timor, Seram, Buru, East Sulawesi) and the NW Australian margin (Ager and Sun 1988, Dagys 1993; Figure I.1.15), but *Misolia* is not known from the Late Triassic of West Sumatra or NW Borneo (e.g. Krumbeck 1914);

4. Late Triassic pelagic bivalves *Monotis salinaria* (low-latitude Tethyan; Timor, Seram) versus *Monotis subcircularis* (mid-latitudes; NW Kalimantan, Indochina, etc.) (Silberling 1985);

5. Late Triassic ammonites (incl. *Juvavites, Neotibetites*), corals, sponges (incl. *Heterastridium, Lovcenipora, Tubiphytes?*), etc. from Timor, Buru, Seram, etc., have long been known to be very similar to the Alps and Himalayas (e.g. Diener 1916), suggesting uninterrupted (Meso-)Tethyan connections in relatively low latitudes (= maximum size of Mesotethys);

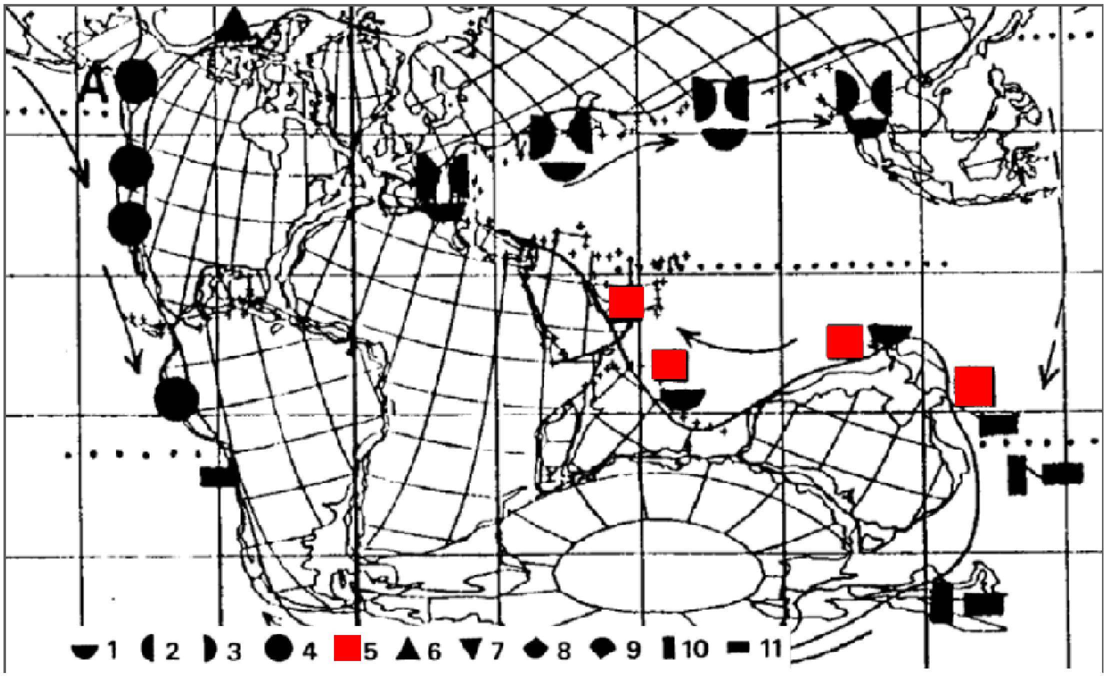


Figure 2. Distribution of selected Late Triassic brachiopod genera (from Dagys, 1993).
5, *Misolia;* 6, *Canadospira;* 7, *Viligella;* 8, *Aulacothyroides;* 9, *Pseudohalorella;* 10,

Figure I.1.15. Late Triassic brachiopods 5= Misolia= typical of southern margin of Mesotethys Ocean

6. Middle- Late Jurassic bivalves and ammonites: Sundaland (Sumatra, NW Borneo) with low-latitude Asian affinity Jurassic shallow marine sediments with bivalve *Parvamussium*, foram *Pseudocyclammina lituus*, etc..(Fontaine et al. 1983). In New Guinea and the Sula islands are Middle- Late Jurassic marine facies with higher-latitude 'North Gondwana/ Austral' fossils characterized by the Late Jurassic pelagic bivalve *Malayomaorica* and Middle Jurassic *Macrocephalites* ammonite assemblages, none which is known from Western Indonesia (Fig. 1.1.16 of Umbgrove 1938; Enay and Cariou 1999);

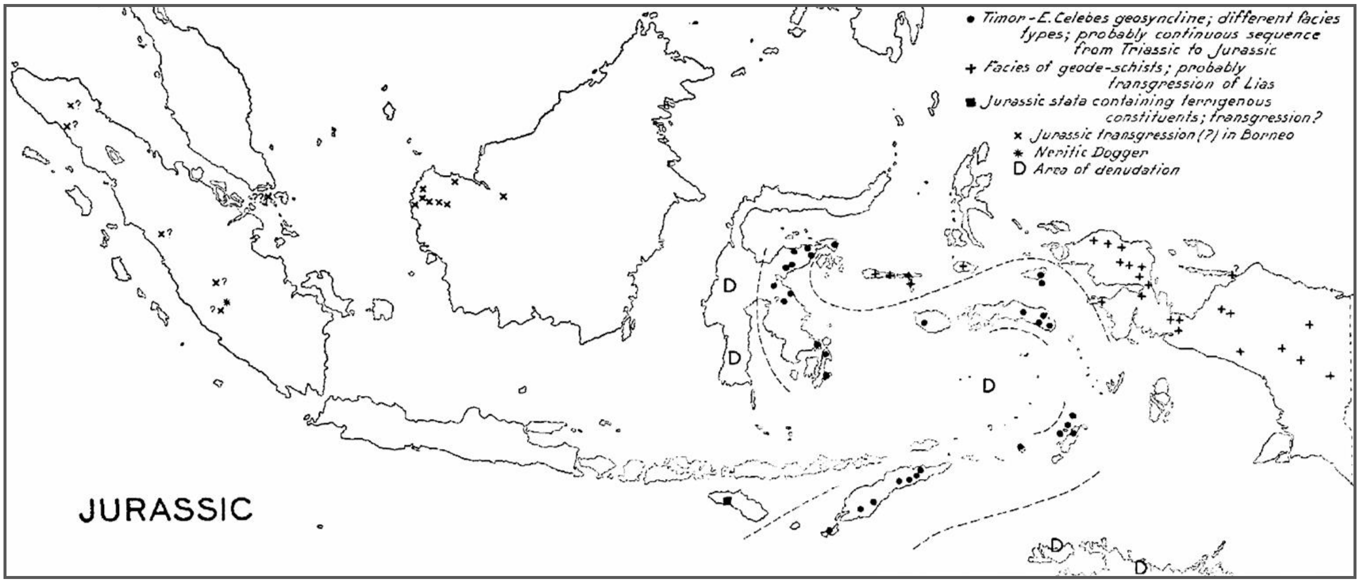


Figure I.1.16. Two different Jurassic facies/ faunal domains in Indonesia, separated 'Timor- Seram- East Sulawesi geosyncline' with continuous Jurassic pelagic facies (solid dots; = Mesotethys suture) (Umbgrove 1938): In West.(x) Sumatra- West Kalimantan, Jurassic shallow marine transgressive sequences (= Sundaland); In East (+) West Papua Middle- Late Jurassic shale facies with geodes, bivalve Malayomaorica and Macrocephalites ammonites (= Gondwana continental margin).

7. Early Cretaceous larger foraminifer *Orbitolina* and (rare) rudistids molluscs. These shallow marine, typical low-latitude Tethyan fossils are widely distributed in West and South Sumatra, Kalimantan, Central Java and West Sulawesi, but are not known from New Guinea or NW Australia, suggesting relatively wide separation at that time.

8. Eocene larger foraminifera: biogeographic separation of *Pellatispira* in SW Pacific- West Indonesia- Neotethys (including Sumba, Seram and Banda Terrane of Timor) and *Lacazinella* in NW Australia- New Guinea and related terranes like Misool and the Banggai-Sula block (Lunt, 2003);

9. The Eocene- Miocene palynological record of SE Asia contains evidence of floral migration events that can be tied to plate tectonic events (Morley 1998, 2000, Lelono 2012). The arrival of Gondwanan migrants in Indonesia in the Eocene such as *Dacrydium, Casuarina* and *Podocarpus* may be tied to the collision of India and Asia. Miocene migrations like distinct increase of Myrtacea pollen at 17 Ma may be tied to the collision of New Guinea with Eastern Indonesia arc/ microcontinents. Dipterocarps, important contributors to oil source rocks on Sundaland in Eocene-Oligocene time, did not occur in New Guinea until until after the Miocene collision.

Plate Reconstructions

The ultimate synthesis of the tectonic evolution of an area is a series of plate reconstructions. Ideally these reconstructions incorporate all known information on the geology of individual plates, especially tectonostratigraphy (stratigraphic successions, ages of unconformities/ deformational events, positions and ages of magmatic arc activity, etc.), paleomagnetic data, paleobiogeographic indicators, etc. (e.g. Figs. I.1.17, I.1.18).

For the Indonesia/ SE Asia region the series of papers by Ian Metcalfe (1988, 1996, 2002, 2009, 2011, 2013, 2017, etc.; Paleozoic- Recent) and Robert Hall (1995- 2017; Eocene- Recent time, but after 2012 back to Jurassic time) have now become the 'gold standards' of SE Asia plate reconstructions.

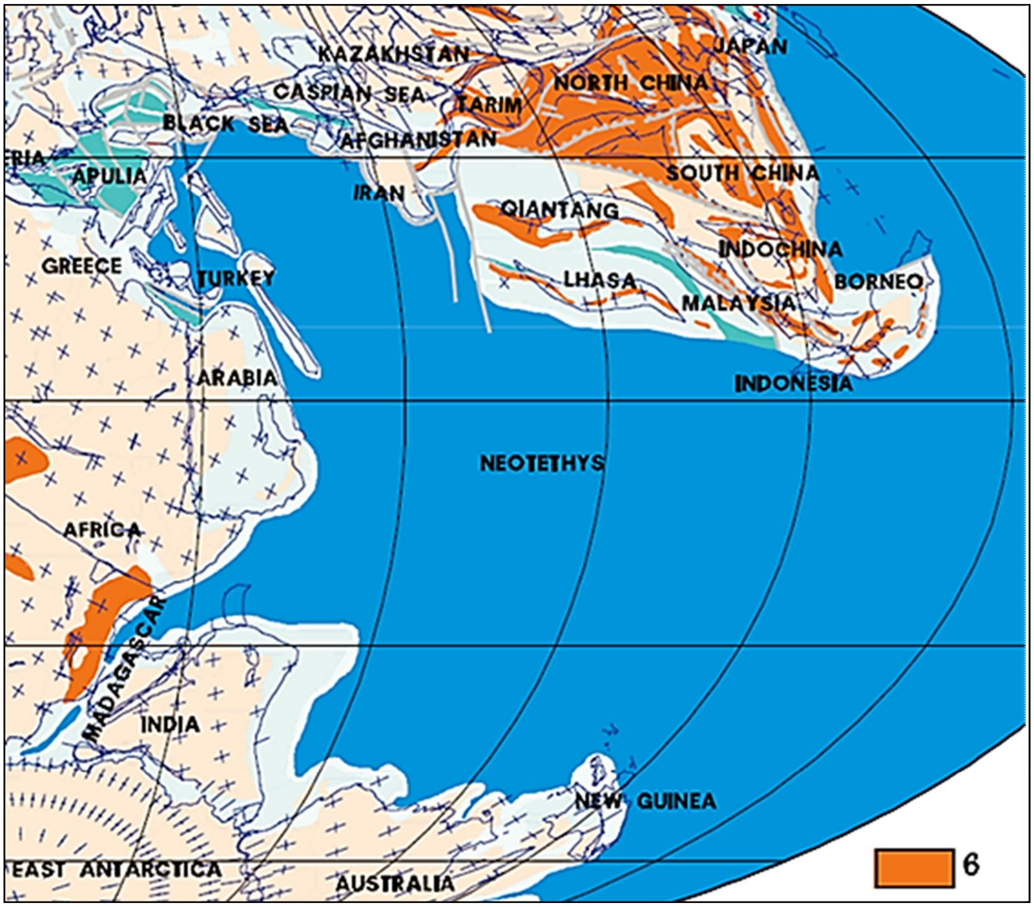


Figure I.1.17. Example of part of Early Cretaceous (146-135 Ma) reconstruction of Golonka (2006), the time of maximum separation between Australia-New Guinea and SE Asia.

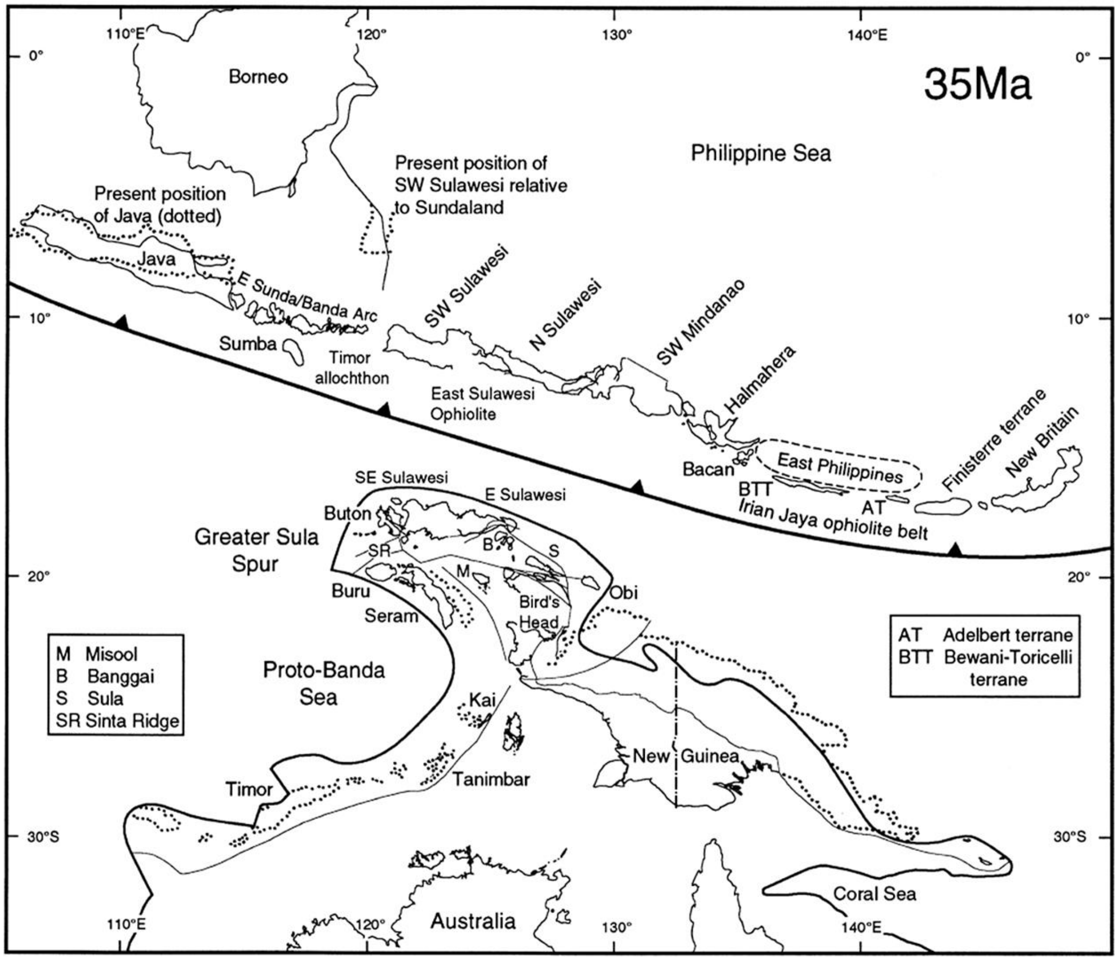


Figure I.1.18. Example of Late Eocene reconstruction (Charlton, 2000), showing a restored Eocene 'Great Indonesian Volcanic Arc, which is now fragmented and distorted almost beyond recognition. Sumba and the Timor Allochthon (= Banda Terrane) are in forearc positions of this arc and are not part of the Australian plate.

Notable papers with alternative plate reconstructions that differ in details from the above, include:

- J. Katili (1971, 1989, 1991)
- N. Haile et al. (1973): SE Asia subduction zones
- P. Stauffer (1974-1986)
- M. Audley-Charles et al. (1976, 1983, 1988): Permian- Cretaceous Gondwanaland- Tethys reconstructions
- C. Hutchison (1973, 1987, 1989, 1994, 1996, 2007, 2014): Sundaland plates history
- C. Pigram and Panggabean (1984) and Struckmeyer et al. (1993): New Guinea- East Indonesia
- H.M.S. Hartono and Tjokrosapoetro (1984, 1986)
- T. Barber (1985 and others)
- T. Charlton (1986, 1991, 2000, 2013, 2016): East Indonesia reconstructions
- R. Murphy (1987, 1998, 2002)
- C. Sengor et al. (1985, 1988, 2009): mainland SE Asia
- Daly, Hooper et al. (1987, 1989, 1991)
- M. De Smet, (1989, 1999)
- Nishimura & Suparka (1990)- Eastern Indonesia at 4, 17 Ma
- C. Rangin, Jolivet & Pubellier (1990): SE Asia in past 43 Myrs
- G. Packham (1990, 1993, 1996)
- T. Simanjuntak (1992, 1994, 1996, 2000)
- Gorur & Sengor (1992): NW Australian shelf breakup events tied to collision events in Tethysides
- J. Milsom et al. (1992, 1993, 2000, 2001): East Indonesia tectonostratigraphy and suture zones
- L. Ricou (1994)
- J. Sopaheluwakan (1994, 1996): Banda Arc, Timor
- Lee and Lawver (1995): SE Asia reconstructions

- I. Longley (1997)
- M. Villeneuve et al. (1998, 2001, 2004, 2010): East Indonesia
- M. Pubellier et al. (2003, 2004, 2005, 2013): DOTSEA kinematic reconstructions back to 20 Ma, etc.
- R. Harris (2006): Timor, East Indonesia
- J. Golonka (2000, 2006, 2012, 2018): global plate reconstructions
- C. Scotese (1988-2017): global plate reconstructions
- R. Dietmar Muller and co-workers (2000-2017): oceanic basins reconstructions
- C.K. Morley (2001, 2002, 2012, 2013): Cenozoic mainland SE Asia, rift basins
- N. Sribudiyani et al. (2003): East Java microplate
- Gaina & Muller (2007): SE Asia- N Australia- W Pacific major plates and paleobathymetry back to 50 Ma
- Zhou et al. (2008) Greater South China Sea- Borneo reconstructions
- A. Satyana (2003, 2009, 2012)
- S. Zahirovic et al. (2014, 2016).
- A. Gibbons et al. (2012, 2015)

SW Borneo Block

One major 'bone of contention' in recent plate reconstruction models is whether there is a separate SW Borneo Block that rifted off the NW Australia margin in Late Jurassic time ('Argoland') and collided with SE Asia in mid-Cretaceous time (Hall 2011, 2014, Metcalfe 2013; e.g. Figure I.1.2.), or whether SW Borneo/ Kalimantan has been part of 'Sundaland' since its amalgamation in Late Triassic time (most older papers like Umbgrove 1938 (Figure I.1.11), Zhou et al. 2008, and global models of Scotese 2001 and others, Golonka 2006 and others, Gibbons et al. 2015, Zahirovic et al. 2016, etc.). Metcalfe (1998 and others) viewed SW Borneo as a separate plate, but derived from the Indochina/ Cathaysialand margin.

Problems with the recent scenario of SW Borneo Block as a Gondwanan terrane that was added to Sundaland in Cretaceous time include:

1. Gravity and seismic data of the Sunda Shelf (the proposed area for the suture zone) show good continuity between Sumatra and Kalimantan (e.g. Figure 1.1.5), with no obvious evidence for a basement suture/ terrane boundary;
2. There is no stratigraphic support from Borneo for this scenario. The only area on the island where Permian-Jurassic rocks are not destroyed by Cretaceous magmatism, metamorphism and uplift/erosion is in the NW Kalimantan- SW Sarawak border area. This area shows Sundaland- affinity imbricated Carboniferous- Early Permian sediments, unconformably overlain by Late Triassic- Cretaceous sediments with low-latitude floras and faunas of Indochina affinity/ unconformities (Zeijlmans van Emmichoven 1939). This Permian-Cretaceous tectonostratigraphy is definitely not Gondwanan, but fits well with other parts of Sundaland that were affected by the Late Triassic Indosinian orogeny (Sumatra, Bangka, Malay Peninsula, etc.) (see also additional papers on Borneo in Chapter V).

DOTSEA (2005) kinematic reconstructions

An interesting exercise by the DOTSEA project (Pubellier et al. 2005). shows kinematic reconstructions of SE Asia back to 15 Ma, by simple back-tracking of measured present-day GPS plate motions (directions and velocities), assuming these have been constant since then. In a series of maps they restored areas of oceanic crust that have been subducted. Interesting elements of the 15 Ma restoration map, that are not part of most 'mainstream' interpretations, include (1) the position of Birds Head well North of New Guinea and (2) a significant area of consumed (oceanic?) crust in the North Makassar Straits basin, which at that time may have been double the width. (Figure I.1.19).

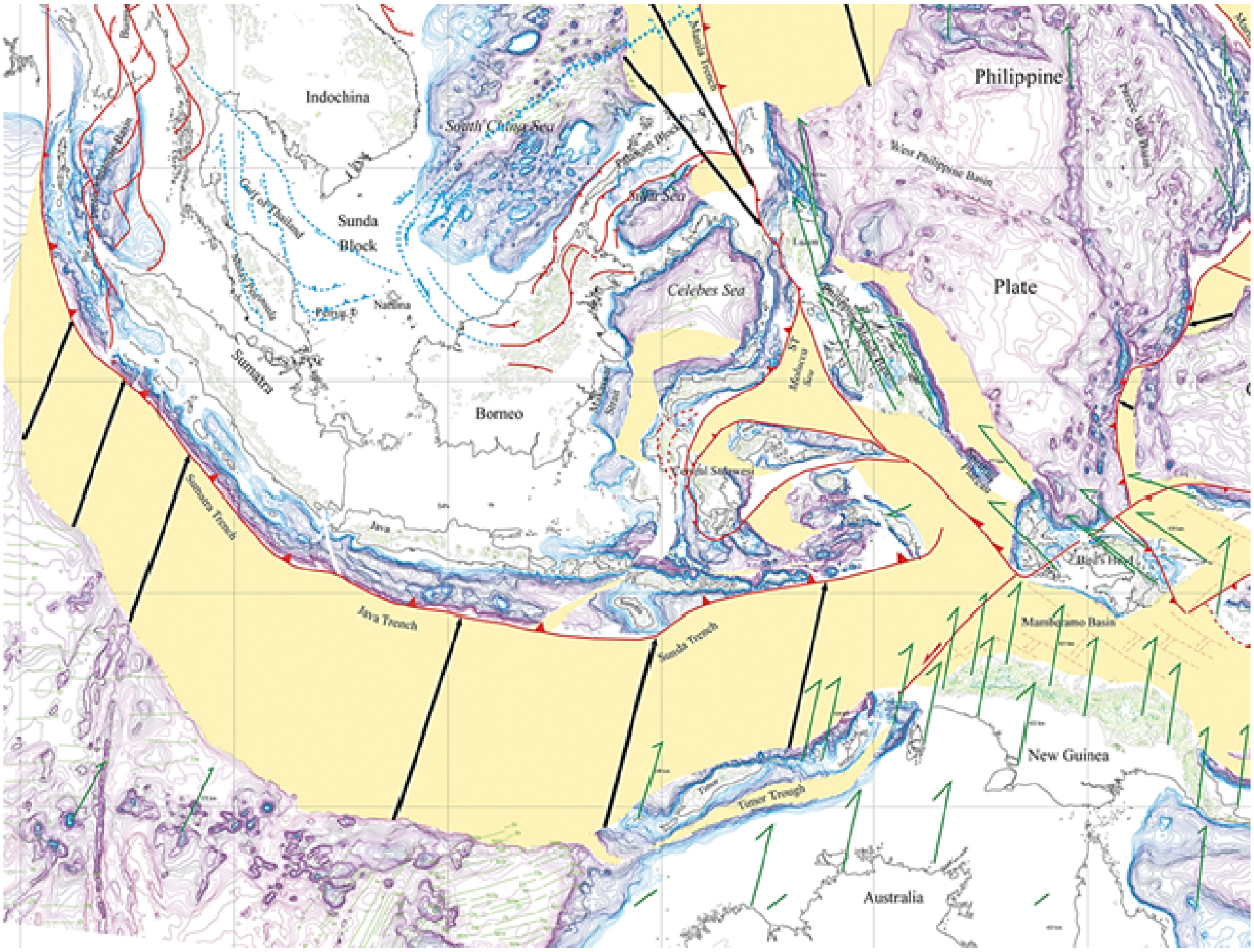


Figure I.1.19. Kinematic reconstruction of the Indonesian region for 15 Ma (Middle Miocene), built from back-tracking present-day GPS plate motions. Yellow areas are areas of oceanic crust that are now subducted. (Pubellier et al. 2005; DOTSEA project; part of 15 Ma map).

Some suggested reading- Indonesia/SE Asia tectonics *(not a complete listing of all relevant papers)*

Indonesia/ SE Asia text books:	*Brouwer 1925, Rutten 1927, Van Bemmelen 1949, Umbgrove 1949, Hamilton 1979, Hutchison 1989, 2007, Darman and Sidi 2000.*
Pre-plate tectonics models	*Volz 1912, Abendanon 1914, 1915, Brouwer 1917, 1918, 1922, 1949, Van Es 1919, Smit Sibinga 1927, 1933, Umbgrove 1934, 1949, Van Bemmelen 1933, 1949, 1954, Westerveld 1949, Klompe 1957, Carey 1958, 1975, Meyerhoff 1996.*
Plate Tectonics syntheses: Indonesia	*Katili 1971, 1989, etc., Audley-Charles 1976, Stauffer 1974-1986, Hamilton 1979, Ridd 1980, Pigram and Panggabean 1984, Hartono and Tjokrosapoetro 1984, 1986 Barber 1985, Wood 1985, Charlton 1986, 1991,2000, 2013, 2016, Sengor et al. 1988, 2009, Gatinsky 1986, Gatinsky and. Hutchison 1986, Audley Charles and Harris 1990, Metcalfe 1988, 1996, 2002, 2009, 2011, 2013, 2017, Hutchison 1973, 1987, 1989, 1994, 1996, 2007, 2014, Murphy 1987, 1998, 2002, Daly, Hooper et al. 1987, 1989, 1991, De Smet 1989, 1999, Rangin et al. 1990, Milsom 1992, 1993, 2000, 2001, Struckmeyer et al. 1993, Simanjuntak 1992, 1994, 2000, Prasetyo 1995, Lee and Lawver 1995, Packham 1990, 1993, 1996, Simandjuntak and Barber 1996, Hall 1996, 1998, 2002, 2009, 2012, 2017, Longley 1997, 2002, Villeneuve et al.1998, 2001, 2010, Harris 2006, Scotese 2001, R.D. Muller 2000, 2016, C.K. Morley 2002, 2012,*

	Stampfli and Borel 2002, Pubellier et al. 2003, 2004, 2005, 2013, Satyana 2003, 2009, 2012, Gaina and Muller 2007, Golonka 2006, 2012, 2018, Spakman & Hall 2010, Clements et al. 2011, Hall and Sevastjanova 2012, Zahirovic et al. 2014, 2016, Gibbons et al. 2015.
GPS plate motions SE Asia	*Chamot-Rooke et al. 1999, Rangin et al. 1999, Wilson et al. 1999, Simons et al. 1999, 2003, 2007, Becker et al. 2000, Michel et al. 2000, 2001, Pubellier et al. 2005 (DOTSEA), Calais et al. 2006, Vergnolle et al. 2007.*
GPS plate motions Indonesia	*Genrich et al. 1996, Walpersdorf et al. 1988, Kreemer et al. 2000, Michel et al. 2000, 2001, Bock et al. 2003, Subarya 2004, Nugroho 2005, Nugroho et al. 2009, Susilo et al. 2015, 2016, Koulali et al. 2016*
GPS plate motions Sumatra	*Genrich et al. 2000, Prawirodirdjo et al.1997, 2000, McCaffrey et al. 2000, Michel et al. 2001, Simoes et al. 2004, Vigny et al. 2005.*
GPS plate motions Java	*Tregoning et al. 1994, Abidin et al.2009, Meilano et al. 2012, Hanifa et al. 2014.*
Earthquakes hypocenters	*Berlage 1937, 1939, Hamilton 1974, Cardwell and Isacks 1978, 1981, Das et al. 2000.*
Tomography velocity models	*Puspito et al. 1993, 1995) Widiyantoro and van der Hilst 1996, 1997, Hafkenscheid et al. 2001, Replumaz et al. 2004, Tregoning and Gorbatov 2004, Richards et al. 2007, Spakman and Hall 2010, Widiyantoro et al. 2011, Hall and Spakman 2015, Huang et al. 2015, Wu and Suppe 2016, 2017, Van der Meer et al. 2012, 2018*
Paleomagnetism Indonesia	*Haile 1976, 1978, 1981, Haile et al. 1977, Sasajima et al. 1978, 1980, 1981, Otofuji et al. 1981, Mahfi 1984, Untung et al. 1987, Schmidtke et al. 1990, Fuller et al. 1991, 1999, Sunata and Wahyono 1991, Panjaitan and Mubroto 1993, Mubroto 1994, Richter and Fuller 1996, Wensink 1987) Van der Voo 1993, Mubroto et al. 1993, Surmont et al. 1994, Ali and Hall 1995, Hall et al. 1995, Ali et al.1996,2001, Nishimura and Suparka 1997, Mubroto and Ali 1998, Ngkoimani et al. 2005, 2006, Panjaitan 2009, Muin et al. 2017*
Paleobiogeography- Permian	*Asama 1976, 1984, Archbold 1983, 2000, Shen et al. 2013, Shi et al. 1995, Shi and Archbold 1998, Wang and Sugiyama 2002, Ueno 2003, 2006, Srivastava and Agnihotri 2010.*
Triassic	*Ager and Sun 1988, Dagys 1993*
Jurassic	*Westerrnann 1993*
Cretaceous	*Uhlig 1911.*

I.3. Volcanism, Volcanic rocks geochemistry

Chapter I.3 of the Bibliography focuses on papers on regional volcanism in the Indonesia- West Pacific region. Many additional papers that are specific to a single region will be under the chapter for the area in which they are located. Most of the papers on volcanics of Java island are listed in Chapter III.3.

Papers on individual eruption events and volcanic hazards are not included in this Bibliography, unless they contain significant geological information.

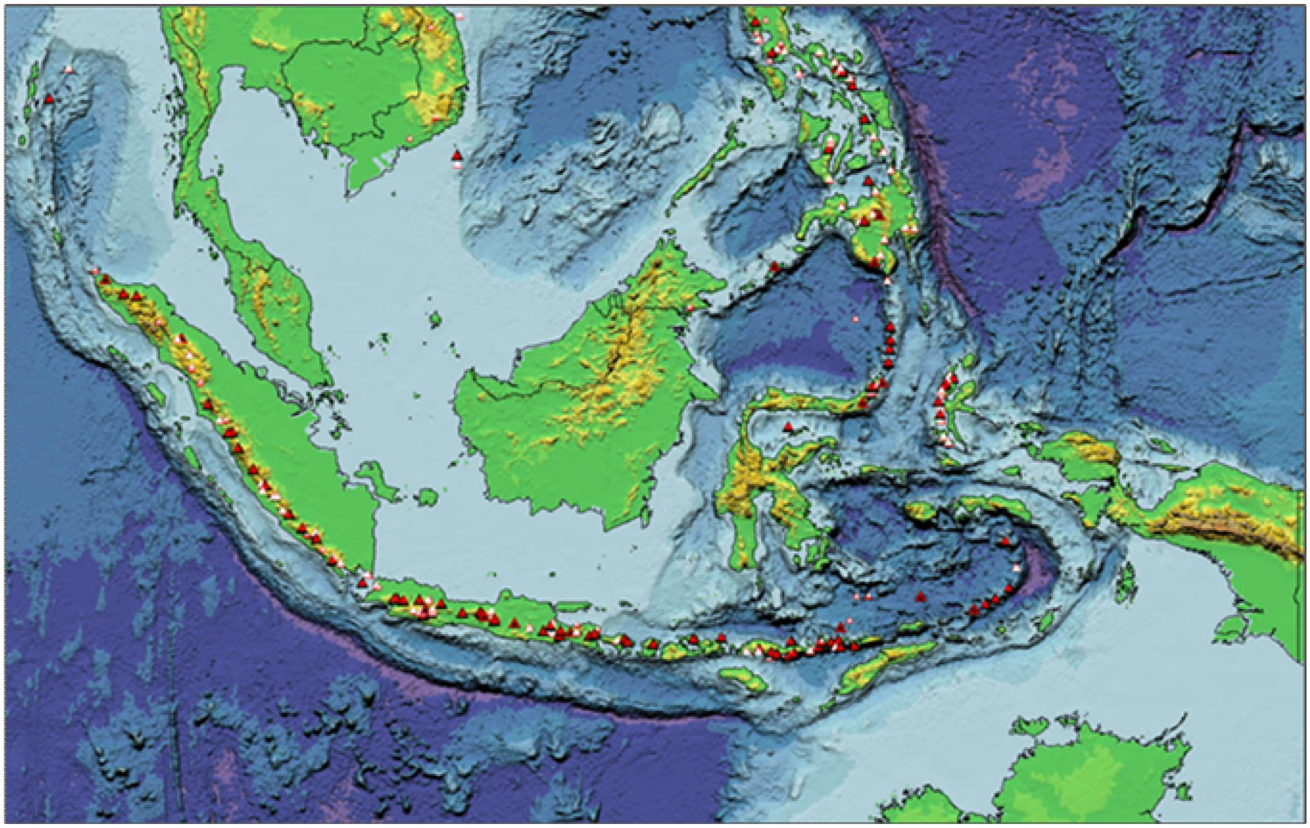


Figure I.3.1. Active volcanic centers of the Indonesian region can be grouped in Sunda Arc and Banda Arc of Sumatra- Java- Lesser Sunda Islands, and the Sangihe Arc and Halmahera Arc West and East of the Molucca Sea (Smithsonian map).

Indonesia, with its 128 active and numerous extinct volcanoes, is one of Earth's most volcanically active regions of the world (Figure I.3.1). Partly because of some of the largest eruptions in recorded history (Tambora 1815, Karakatau 1883) the country has attracted volcanological studies for over 130 years. The extensive report by Verbeek (1885-1885) on the geology of Krakatau volcano in Sunda strait and the sequence of events around the 1883 eruption made Verbeek a worldwide celebrity (Figure I.3.2).

Volcanic arcs form above subducting oceanic slabs, generally where the Wadati-Benioff zone reaches a depth of ~100km (England et al. 2004). This depth may vary along strike (e.g. average 90 km in West Java, closer to 150km depth in Central and East Java, East of 108°E; Syracuse and Abers 2006), and in dip direction.

In Indonesia active volcanism occurs along three main arc segments, Sunda-Banda, Sangihe and Halmahera (Figure I.3.1). The first two of which were probably once a continuous system, related to the same North-moving subducting Indian Ocean- Australian plate.

Active and extinct arc systems may be classified by age and by subducting oceanic plates:
- from South: Mesotethys, Neotethys, Indian ocean- Australian (Cretaceous, Eocene, Oligo-Miocene and Recent arcs of Sumatra, Java, SE Kalimantan, West Sulawesi, etc.);
- from East : Pacific Ocean/ Philippine Sea Plate (Halmahera?, Philippines, West Sulawesi)

- from North- NW: 'Paleo-Pacific? (Kalimantan Triassic and Cretaceous arcs), 'Proto-South China Sea' (Kalimantan Oligocene- Middle Miocene arcs), Celebes Sea (North Sulawesi), Philippine Sea Plate (New Guinea Late Miocene- Pleistocene).

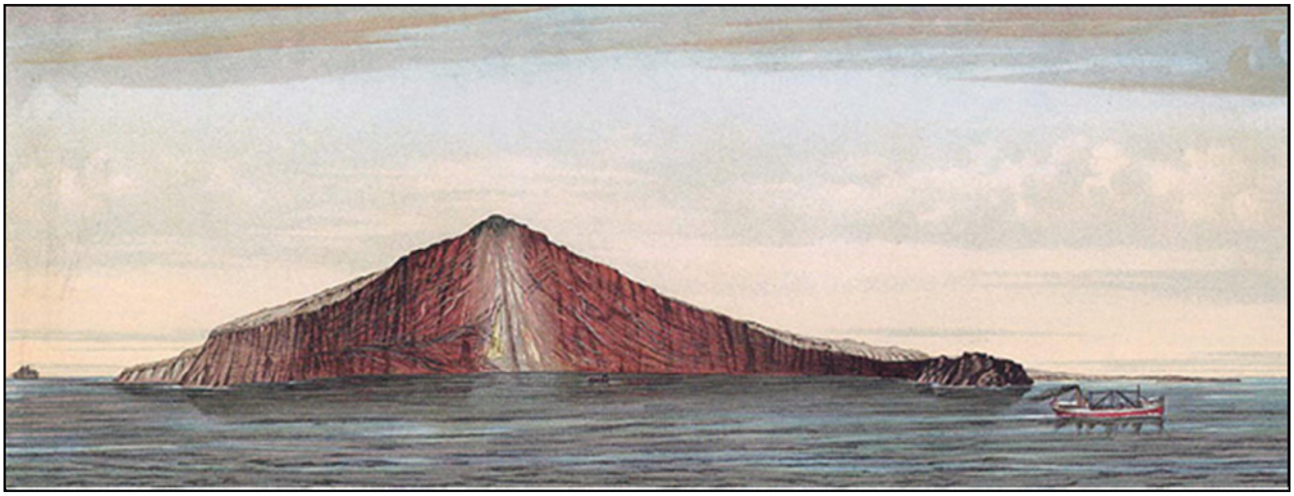


Figure I.3.2. Remnant of Krakatau volcano in Sunda Strait, after the 1883 eruption (Verbeek 1885).

Preservation of volcanic edifices

Many of the active volcanoes of Indonesia build up to elevations of 3000m, some are up to 3700-3800m ihigh (Kerinci on Sumatra, Semeru on Java, Rinjani on Lombok). However, the preservation potential of these volcanic cones in the geological record is rather low.

After volcanic activity ceases, erosion of volcanic edifices tends to be quite rapid, and most of the volcanic material ends up in a wide mantle of eroded volcanoclastics. Most of what will be preserved in the geologic record at the eruption site will be the basal volcanic deposits and the underlying intrusives (feeder pipes, dikes and granitoids that formed the deeper magma feeder system) (Figure I.3.3).

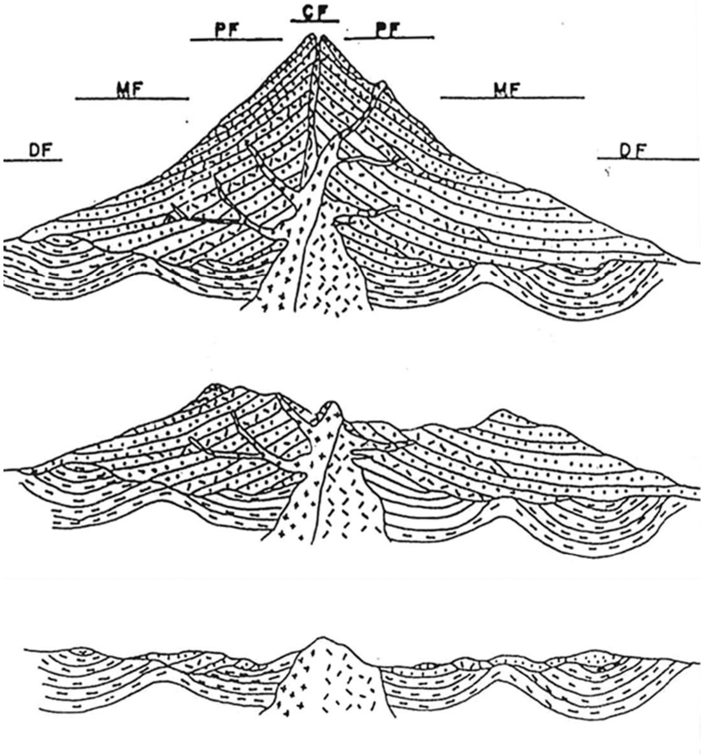


Figure I.3.3. Successive stages of erosion, from active volcano (top) to completely eroded (bottom). CF, PF, MF, DF= Central, Proximal, Medial and Distal facies of volcanic deposits (from Isnawan and Bronto 1997).

Volcano spacing in Indonesian volcanic arcs

In volcanic arc systems volcanic activity at the surface is not continuous along the entire arc, but tends to be in discrete volcanic eruption centers, that are separated by areas of no volcanism. The spacing between volcanic centers is often quite at regular, with distances of around 70 km, both in Pacific hotspot seamount chains and in Pacific volcanic arcs above subduction zones. Some authors suggested volcano spacing tends to be close to (but generally slightly less than) the underlying lithospheric thickness (Vogt 1974, Mohr and Wood 1976).

On Java volcano spacing is rather irregular in West Java, but in East Java volcanoes they are fairly regularly spaced at ~70km (Figure I.3.4.). In the East Sunda- West Banda island arc volcano spacing from Bali-Sumbawa averages 68 km, Flores is highly irregular, but in the East Banda Arc the average is 72 km (Ely and Sandiford 2010).

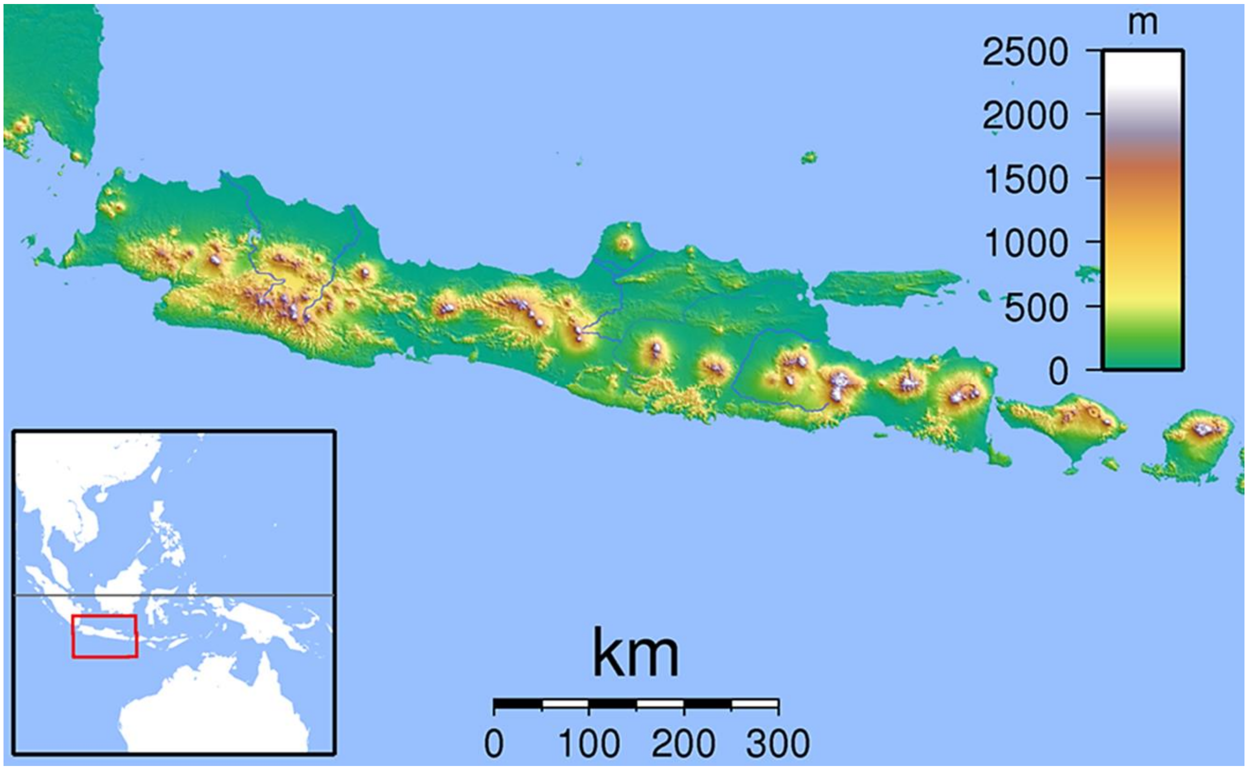


Figure I.3.4. Many of the active volcanoes of the Sunda Arc on Java are spaced at ~70 km apart.

Volcanic centers of the Sangihe Arc on and south of Sangihe Island are evenly spaced at ~50 km apart.

Lateral shift of volcanic eruption centers

As noted by several authors, some of the larger volcanic complexes on Java show remarkable southward shifts in eruption centers through time, i.e. in the direction towards the subduction zone (Neumann van Padang 1936,). While the modern arc runs North of the Late Oligocene- earliest Miocene 'Old Andesites' arc fo the Southern Mountains, the Quaternary edifices of Slamet, Sumbing- Sundoro, Ungaran- Merbabu- Merapi, Lamongan, and Semeru all show a North-to-South migration (Figure I.3.4).

There is no generally accepted explanation for this yet, but it probably involves slab rollback and/or relative northward movement of the upper plate.

This is not the same as the >50km northward shift of the axis of arc magmatism on Java from the Late Oligocene- Early Miocene 'Old Andesites' system of the Southern Mountains of the axis of the Pleistocene-Recent Sunda Arc. This was probably not a continuous, gradual process; these two may be two unrelated volcanic episodes/ belts, with a temporal gap in volcanism between 11-18 Ma (Bellon et al. 1989) or longer.

Geochemistry of volcanic rocks

Numerous papers have been written on major elements, trace elements and isotope geochemistry of volcanic rocks and gases from the Indonesian volcanic arc systems, dating back to the early 1900's.

Commonly reported trends in geochemistry of volcanic products include:

1. an overall increase in K_2O and alkali % with depth to the Benioff zone depth, with low-K 'volcanic front' lavas and medium-high K 'Rear Arc' lavas, often with leucite-bearing volcanics, above the deeper parts of the Benioff zone (Rittmann 1953, Hutchison 1975, 1976, 1981, Soeria-Atmadja et al. 1988, Sendjaja et al. 2009). However, there is rather high variability in this trend and some authors questioned its validity (Leterrier et al. 1990, Abdurrachman et al. 2015);
2. Many volcanic complexes go through a similar evolution from Early Stage basalt or basaltic andesite, Middle Stage andesite and Late Stage dacite;
3. Many arc volcanic rocks appear to be contaminated with continental crustal rock or sediment material, as indicated by common dacite/ rhyolite, high Rb/Sr ratios, etc. (e.g. Van Bergen et al. 1993, Abdurrachman and Yamamoto 2012).

Key papers geochemistry of Sunda-Banda Arc volcanic products include: Hutchison 1975, 1976, 1981, Nicholls and Whitford (1976, 1978, 1980), Foden (1979, Soeria-Atmadja et al. (1988, etc.), Hilton et al. (1989, 1992), Poorter et al. (1989, 1991), Gasparon and Varne (1994, 1998), Zulkarnain (1995-2016), Hoogewerff at al. (1997, 1999), De Hoog et al. (2001, 2009), U. Hartono (1994-2011), MacPherson et al. (2003, 2010), Elburg et al. (2004, 2005, 2008), Handley et al. (2006-2018), Abdurrachman et al. (2011-2017), Dempsey (2013), Van Bergen et al. (1989, 1992, 1993) etc..

Variations in composition of lavas along Sunda-Banda Arc reflects underlying the lateral change from continental crust in the Sumatra - West Java segment, transitional (Gondwanan?) accreted crust in Central and East Java, while an oceanic island arc developed from Bali to Sumbawa and farther East (Hamilton 1978).

Mineral deposits

The magmatic arcs of Indonesia (and The Philippines, New Guinea) are hosts to numerous porphyry copper-gold and and epithermal gold-silver deposits (Figure I.3.5). Some key papers include Taylor and Van Leeuwen (1980), Carlile and Mitchell (1994), White et al. (1995), Soeria-Atmadja et al. (1998), Garwin et al. (2005), U. Hartono (2009), MacPherson and Hall (2002), Maryono et al. (2018) and others.

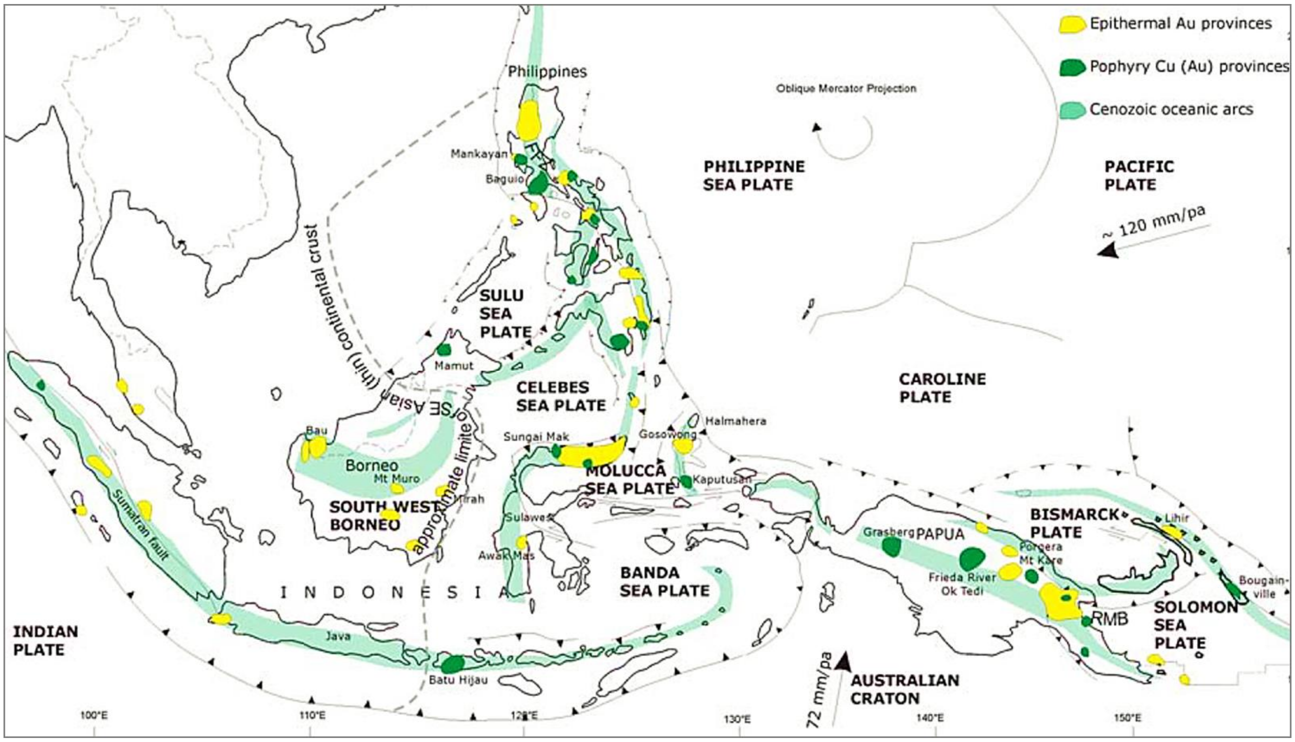


Figure I.3.5. Cenozoic volcanic arcs and main porphyry Cu-Au (green) and epithermal Au (yellow) deposits (De Waele et al. 2009)

Eight of the 15 identified volcanic-plutonic arc systems are associated with commercial mineral deposits, others may have potential (Hartono 2009).

Most of the giant Au and Cu deposits in the Indonesia - West Pacific region formed in Miocene- Pleistocene arc systems. For more detail see also Chapter XI.4.

Older Volcanic Arc systems of SE Asia- Indonesia

Most of the volcanism in the modern Sunda- Banda Arc appears to be quite young, mainly since 6-3 Ma. However, up to 15 older, extinct volcanic-plutonic arc systems have been recognized in Indonesia, dating back to Permian time (Fig. I.3.6).

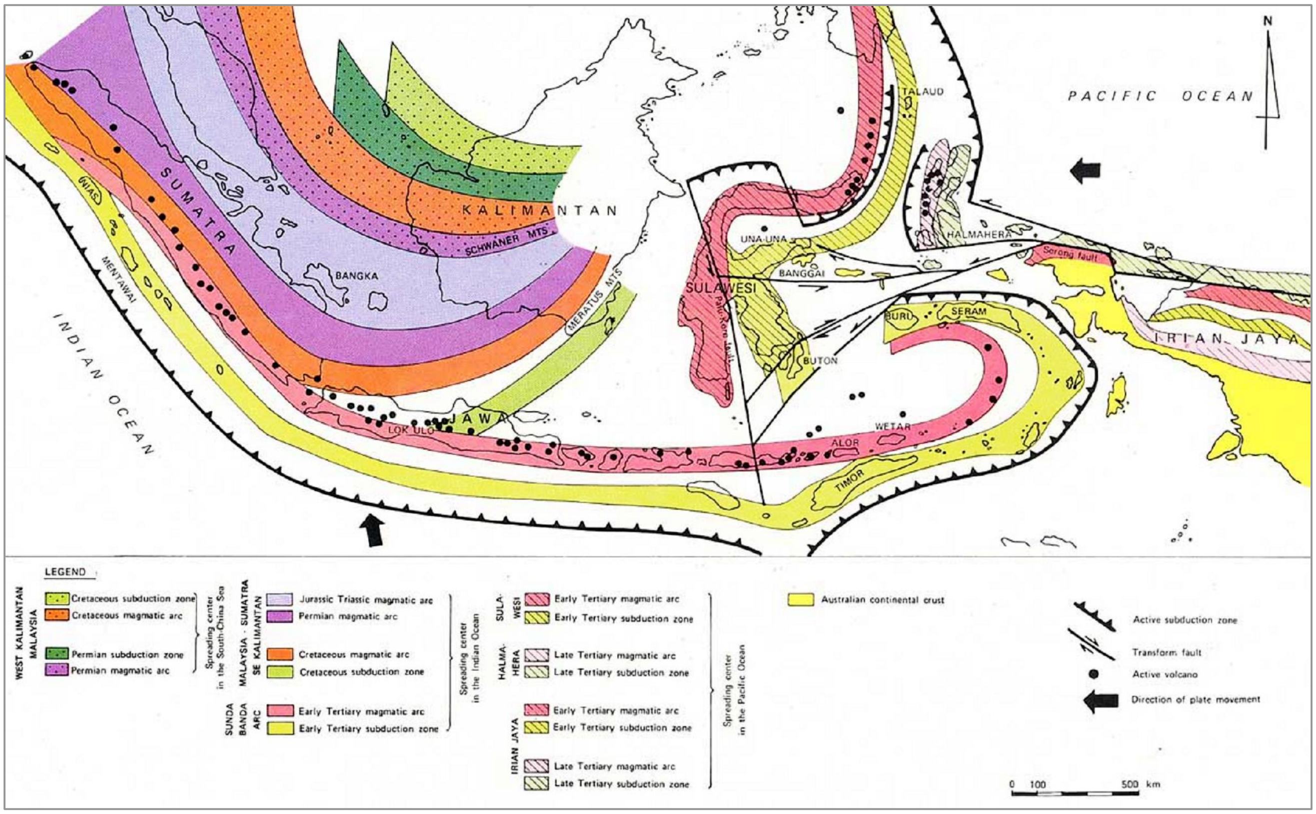


Figure I.3.6. Permian- Recent magmatic arcs/ subduction zones Indonesian Archipelago (Katili 1974).

The most prominent of the older, extinct arc systems in the Indonesian region, in order of increasing age:

1. Early Miocene East-Central Kalimantan Volcanic belt ('Kelian Volcanics'; ~23-20 Ma), >400 km long, (Abidin and Sukardi, 1997) (= Proto-South China Sea subduction from North);
2. Late Oligocene- earliest Miocene 'Old Andesites' of Sumatra and Java (= Indian Ocean- Australia plate subduction from South) (many papers, incl. Smyth 2005, Bronto 2009 and others);
3. Middle-Late Eocene 'Great Indonesian Arc' from Sumatra and Java to SW Sulawesi and displaced terranes of Sumba, and Banda Terrane of Timor (= Neotethys/ Indian Ocean subduction from South) (Charlton 2000, Harris 2006, etc.);
4. Late Cretaceous (~Campanian?) igneous- volcanic system from North Kalimantan to NW across the Anambas- Natuna area, then North to South Vietnam and the Yanshanian active margin of South China (= Paleo-Pacific subduction) (e.g. Hutchison 2005, Amiruddin 2009);
5. Late Cretaceous (mainly ~80-100 Ma) 'Sumatra-Meratus Arc', .2000 km long, from Myanmar- Andaman across West and South Sumatra, NW Java, the Java Sea into the Meratus Mountains (Figure I.3.7) (= Neotethys subduction?) (Katili 1974, Carlisle and Mitchell 1994, McCourt et al. 1996, Hartono 2012);

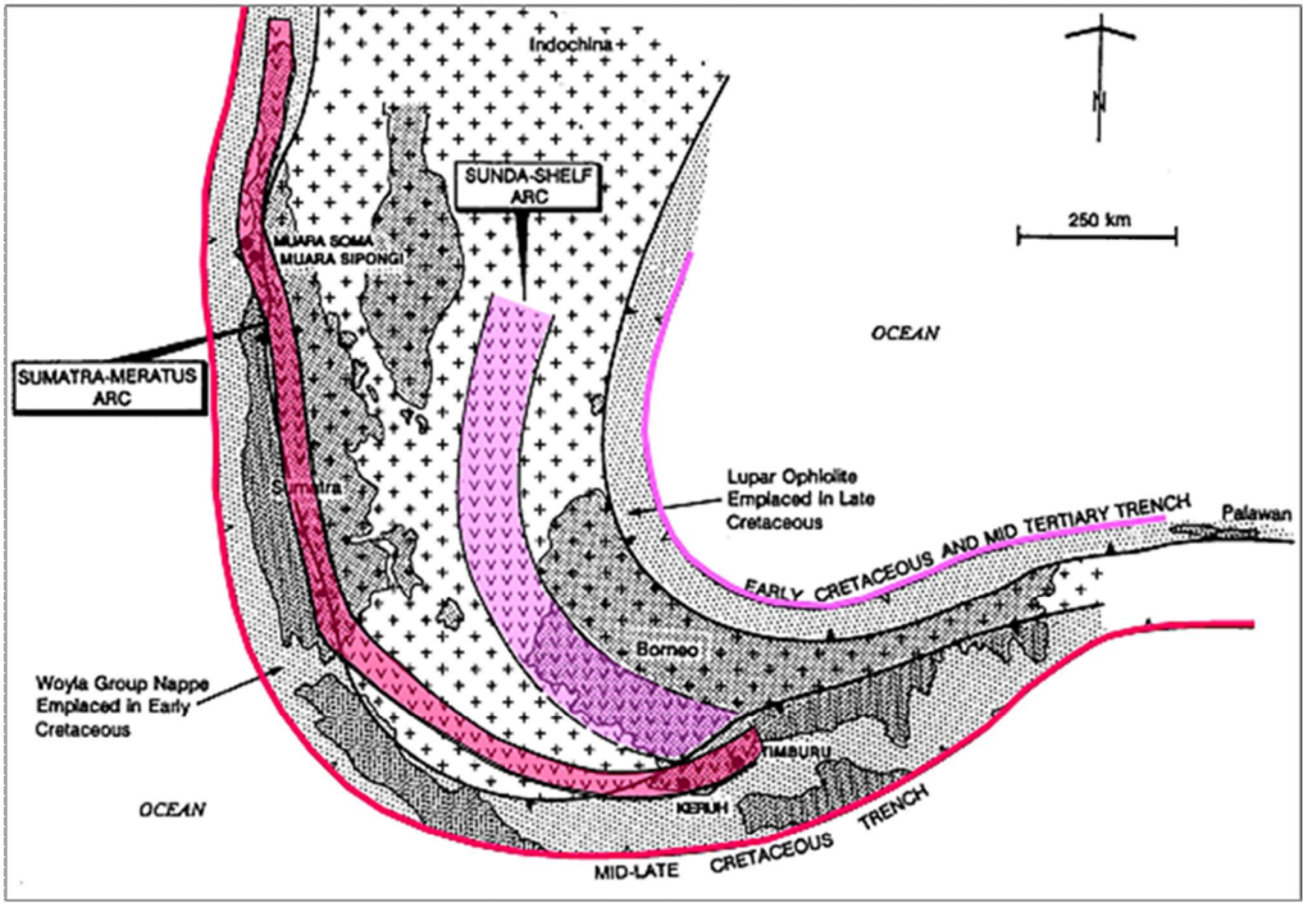


Figure I.3.7. Multiple Cretaceous magmatic arc systems of Western Indonesia, reflecting subduction from both South (Neotethys?) and North or East (Paleo-Pacific) (Carlisle & Mitchell 1994).

6. Mid-Cretaceous (Aptian- Albian) granite belt of the Schwaner Mountains granitoids of Kalimantan, also continuing NW across the Sunda Shelf, along the Indochina coast to the Yanshanian system of the East China margin (= Paleo-Pacific subduction);

7. Late Triassic (-earliest Jurassic?) belt of 'tin granites', from Thailand- Malay Peninsula and continuing into the Indonesian tin islands Bangka and Belitung (Figure I.3.8) (probably mainly post-collisional granites parallelling a slightly older Permian- Triassic arc magmatic belt linked to Paleotethys subduction) (numerous papers);

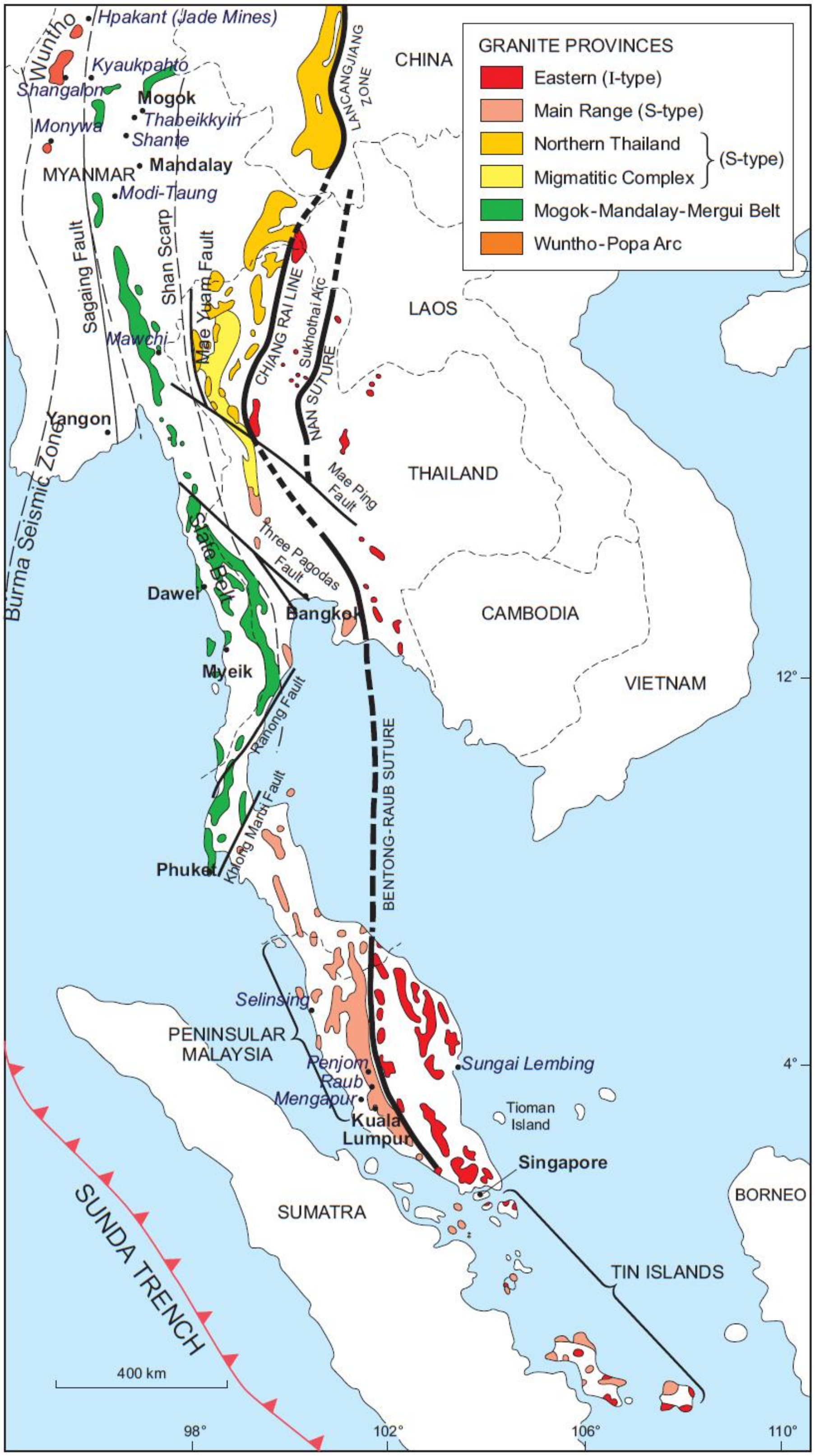


Figure I.3.8. Distribution of Late Triassic- Early Jurassic and Cretaceous tin granites (Eastern and Main Range provinces) from Myanmar, Thailand, Malay Peninsula to the Indonesian Tin Islands Singkep, Bangka and Belitung (Cobbing et al. 1986, in Searle et al. 2016).

8. Late Permian- Middle Triassic 'Gondwanan' magmatic arc, represented by a well-defined belt of granitoids that define a that extends from the East Australian/ East Gondwana active margin into New Guinea island, and into microcontinents derived from this margin like the Birds Head, Banggai-Sula (Figure I.3.9) (= Paleo-Pacific subduction) (Amiruddin 2007, 2009, Jost et al. 2018).

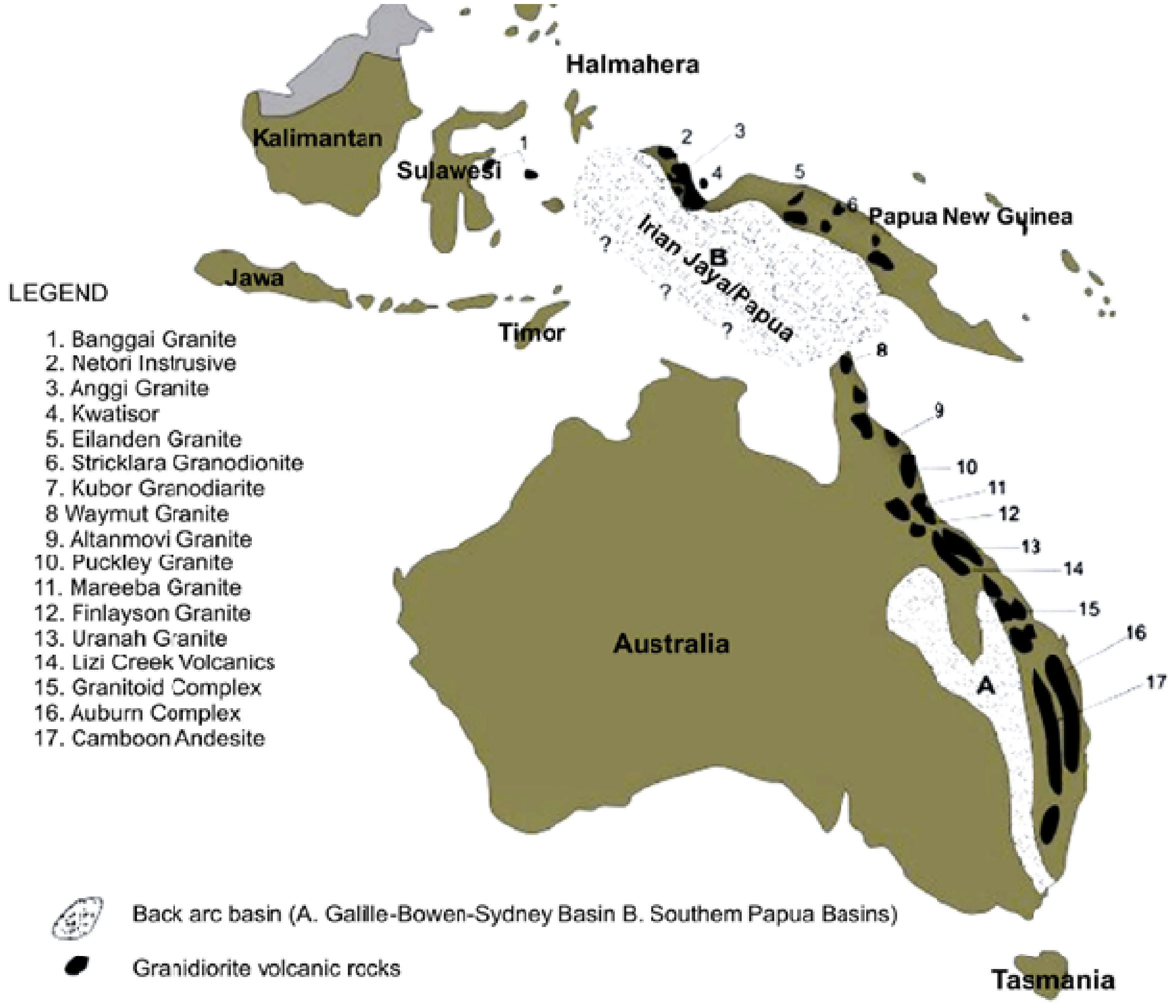


Figure I.3.9. Late Permian- Middle Triassic granitic plutons along East Australian margin, continuing into North Papua New Guinea, West Papua, Birds Head and the Banggai-Sula islands, are remnants of the same magmatic arc, reflecting Paleo-Pacific subduction along the East Gondwana margin (Amiruddin 2009).

9. Earliest Permian intermediate volcanoclastics in West Sumatra associated with the famous 'Jambi Flora' have been interpreted as part of an Early Permian volcanic arc (Figure I.3.10; Cameron et al. 1980, Pulunggono and Cameron 1984, McCourt et al. 1996). Barber and Crow (2003) suggested this was an Early Permian volcanic arc that probably formed at margin of Cathaysian Block. However, the lateral extent of these Early Permian volcanic rocks appears to be rather limited, and the presence of coal beds and rich plant fossils is not necessarily typical of volcanic arc deposits (= possible rift volcanism?).

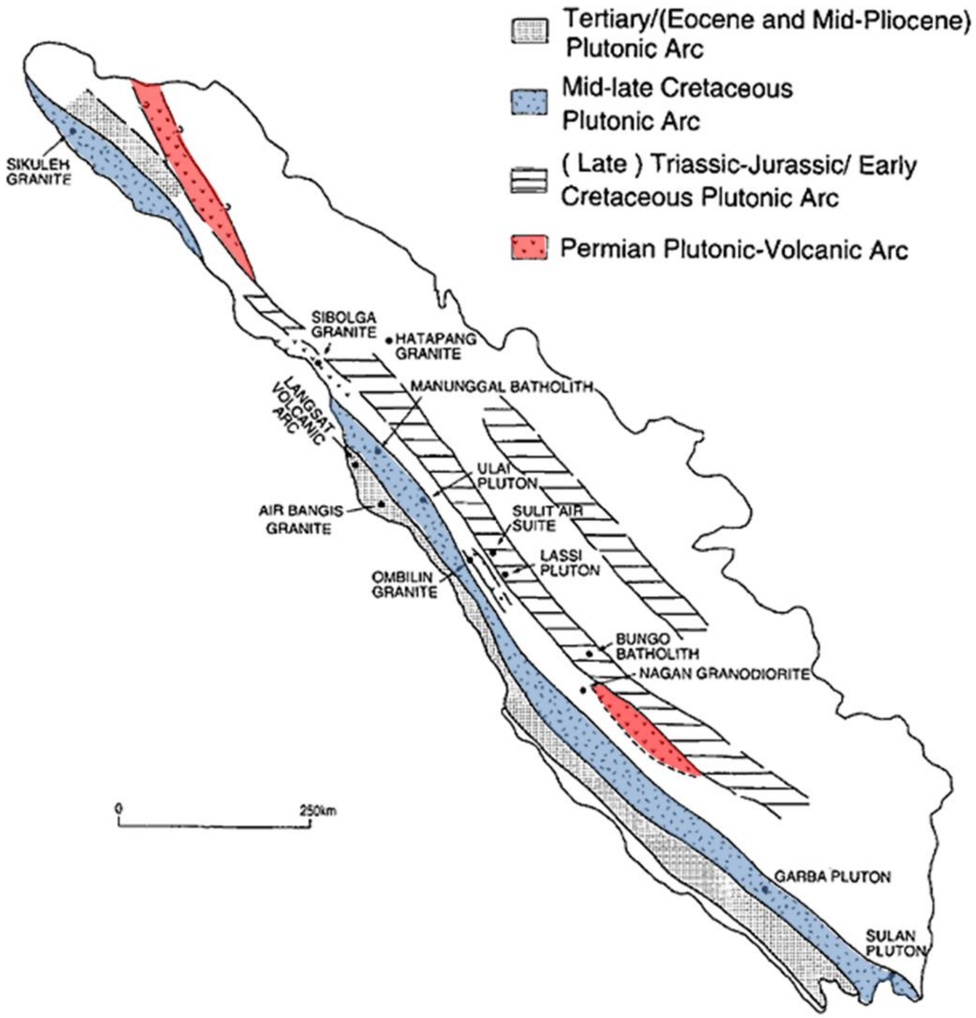


Figure I.3.10. Distribution of Permian- Tertiary magmatic arcs on Sumatra (McCourt et al 1996).

Some suggested reading- Indonesia volcanism *(not a complete listing of all relevant papers)*

Modern volcanoes:	*Junghuhn 1843-1844, Stehn 1927, Neumann van Padang 1936,1983, Petroeschevsky & Klompe 1950, Kusumadinata et al. 1979, Rachmat & Mujitahid 2003, papers by A. Sudradjat 1987 and others, S. Bronto 2003, 2010 and many others.*
Volcanic geochemistry:	*Rittmann 1953, Westerveld 1954, Hutchison 1975, 1976, 1978, 1981, Nicholls and Whitford 1976, 1978, 1980, Foden 1979, Soeria-Atmadja et al. 1986,1988, etc., Hilton et al. 1989, 1992, Poorter et al. 1989, 1991, Van Bergen et al. 1989, 1992, 1993 Gasparon and Varne 1994, 1998, Zulkarnain 1995-2016, Bellon et al.2004, Hoogewerff at al. 1997, 1999, De Hoog et al. 2001, 2009, U. Hartono 1994-2011, MacPherson et al. 2003, 2010, Elburg et al. 2004, 2005, 2008, Handley et al. 2006-2018, Sendjaja & Kimura 2010, Abdurrachman et al. 2011,2017, Dempsey 2013,*
Ancient Volcanic arcs	*Katili 1973, 1974, 1989, Soeria-Atmadja et al. 1986-2001. Carlile and Mitchell 1994, McCourt et al. 1996, Harris 2006, Hall and Smyth 2008 Hartono 2009,*

I.4. Modern environments, Oceanography

Chapter I.4 of Bibliography 7.0 contains >350 papers on modern depositional environments and processes in Indonesia. Indonesia is home to an extreme variety of environments, from glaciated mountain peaks above 4800m in the West Papua foldbelt, volcanoes up to 3800m high, to 6 km deep oceanic basins. It has been a study area for many types of modern environments, like tropical rainforests, peat swamps, coral reefs, deltas, deep marine environments, oceanography, etc..

The Indonesia/ SE Asia region is also home to some of the highest diversity land and marine life ('evolutionary hotspots'; Renema et al. 2008, De Bruyn et al. 2014).

Studies of modern enviroments are important as analogs of ancient deposits of the Indonesian region, in accordance with Lyell's fundamental geologic principle 'the present is the key to the past'. However, it should also be realized that present-day conditions of humid-tropical climate and relatively high eustatic sea-level may not be typical for much of the geologic record:

1. The present-day 'ice-house climate', with rapid eustatic sea level oscillations, existed only since the beginning of the Oligocene; most of the Triassic- Eocene deposits reflect warmer 'greenhouse' conditions;
2. The present-day eustatic sea level is relatively high, and sedentation is still adjusting to the rapid Holocene sea level rise since 18,000 years ago, which created broad flooded shelf regions;
3. Changes in faunal and floral communities;
4. Changes in plates positions and resultant oceanographic patterns: today the Indonesian region restricts oceanic circulaton between The West Pacific and Indian Oceans, but this was much less restricted before the Miocene collisions of frontal areas of the North-moving Australian continental plate.

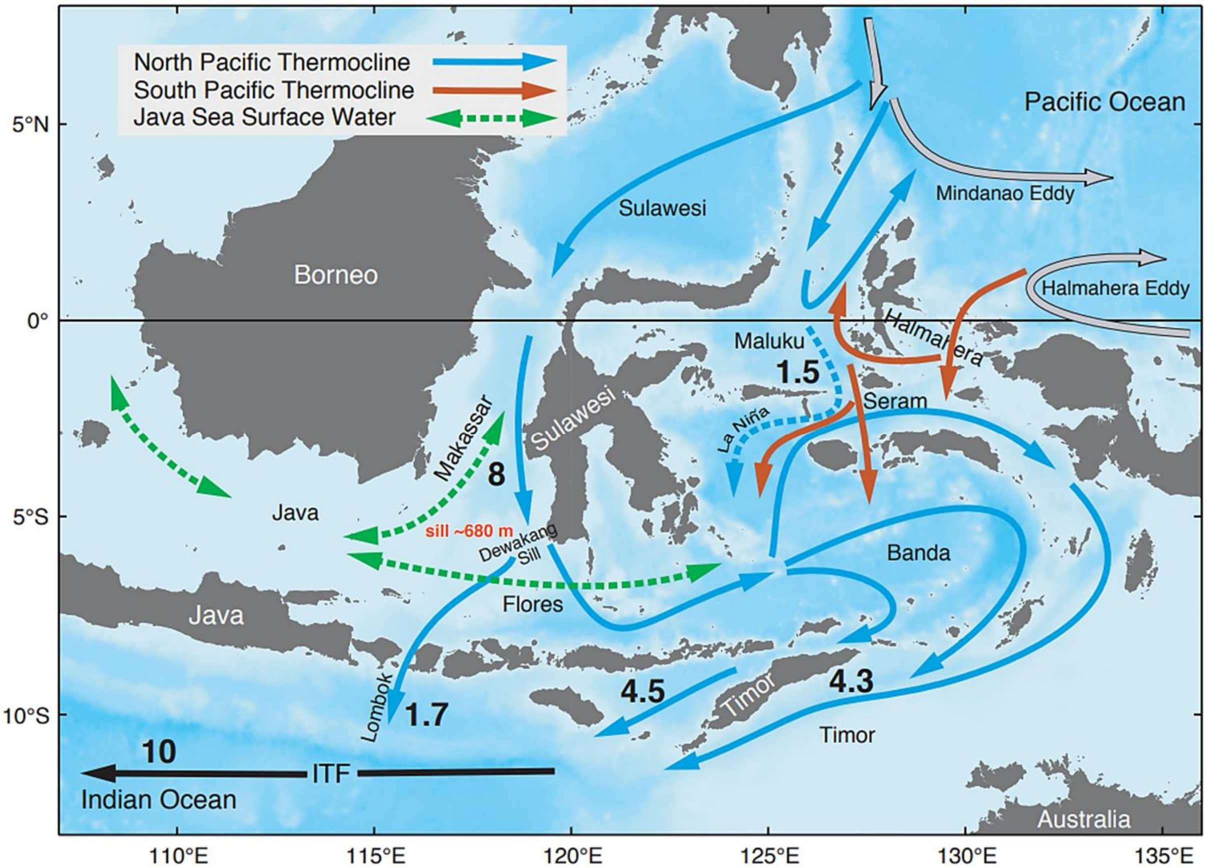


Figure I.4.1. Thermohaline circulation patterns through the Indonesian seas, dominated by 'Indonesian Throughflow' of water from Pacific Ocean to the Indian Ocean. With estimates of total volume transport in Sv (= million m3/ /second). Main inflow at Makassar Straits (8-9 Sv) and also at Lifamatola Passage West of Halmahera (1.5 Sv). Outflow through Timor Sea, Ombai (Savu Sea), and Lombok Straits (Gordon 2005)

Indonesian Throughflow

A topic of great academic interest has been the 'Indonesian Throughflow', the yearly flow of up to 15 sverdrups (>15 million m3/ second) of relatively warm and low saline Pacific Ocean water to the Indian Ocean through the Indonesian Archipelago (Figure I.4.1). The main Throughflow pathway is through Makassar Strait, then partly through Lombok Strait, partly into the South Banda Sea and exiting through the Timor and Ombai passages.

Numerous papers have been published on the oceanography of the Throughflow, a selction of which is in the current Bibliography (papers by Gordon et al., Ffield, Fieux, Godfrey, Hendrizan, Sprintall et al. Susanto et al. Waworuntu et al., and many others)

Changes in the Indonesian Throughflow probably had a significant impact on regional and global climate. The Northward movement of Australia-New Guinea in Neogene time resulted in progressive narrowing of the Indonesian seaways, causing a switch at ~3-5 Ma in the main source of water flowing through Indonesia from warm South Pacific to colder North Pacific waters. This created an area of unusually warm ocean water in the SW Pacific ('Indo-Pacific Warm Pool'; Nathan and Leckie, 2009) and decreased Indian Ocean sea surface temperatures, leading to aridification of Northern Australia and East Africa. (Cane and Molnar 2001, Srinivasan and Sinha 1998), Christensen et al. 2017).

Deltas, sediment yields

Indonesia and SE Asia are also known to host major delta systems, driven by the abundant tropical rainfall and high weathering rates and therefore high river discharge. Rivers draining the major islands of Indonesia supply 20-25% of the total sediment discharge to the world oceans although the land area that they drain is ~2% of the world total (Milliman et al.,1999). (Figure I.4.2).

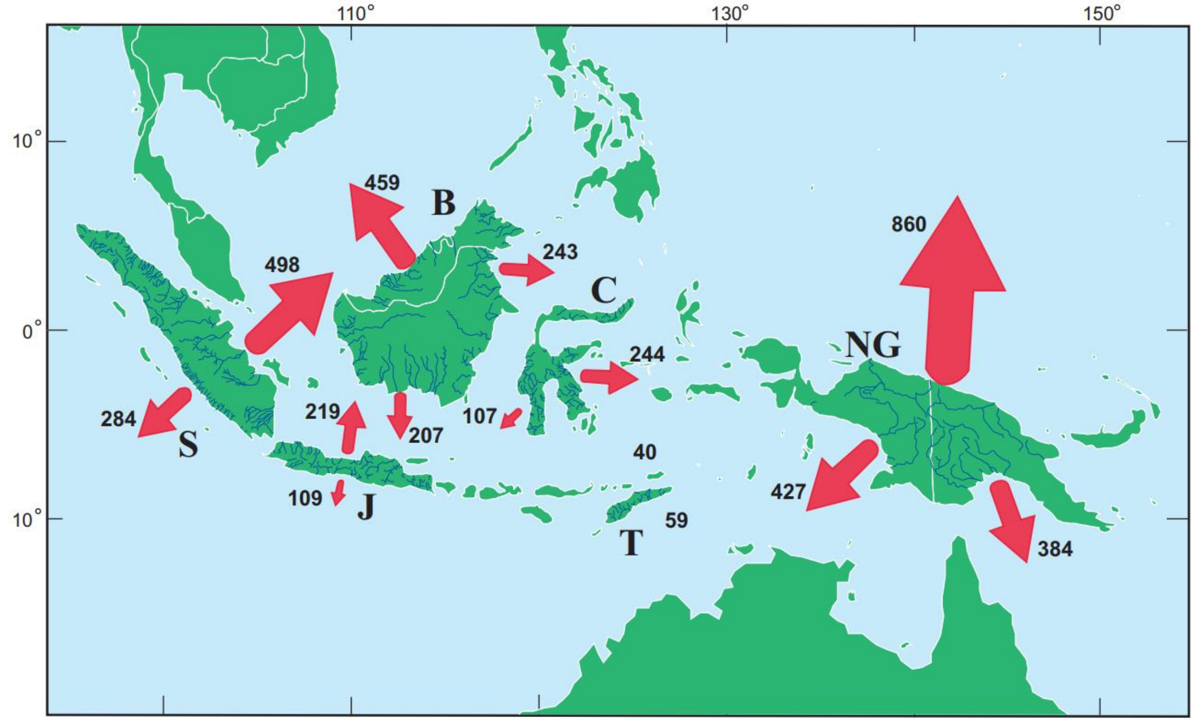


Figure I.4.2. Estimated sediment discharge (MTons/ year) from six Indonesian islands (from Milliman et al., 1999, in Nummedal et al. 2003).

The largest delta systems in the Indonesian region are found around New Guinea (Mamberamo, Fly), Borneo (Mahakam, Baram, Rajang, Barito) and Sumatra. Not all have typical delta morphologies (e.g. the NE Sumatra river deltas).

A recent review of delta systems in SE Asia is by Nummedal et al. (2003). Numerous other studies of modern deltaic sedimentation are in this Bibliography, in both this chapter and under the areas that they are in. Most studies are from the large systems of East Kalimantan and North Borneo.

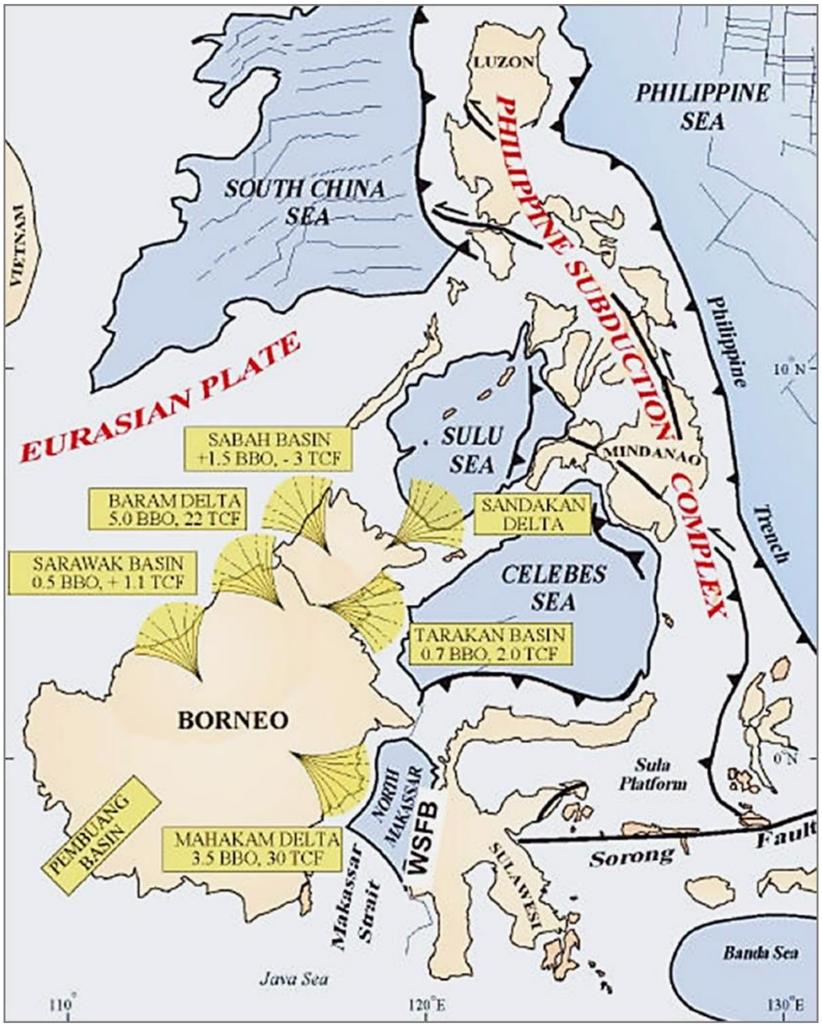


Figure I.4.3. Major delta systems around Borneo island (Graves and Swauger 1997, in Baillie et al. 2004)

Delta plains in SE Asia are typically dominated by mangrove vegetation and peat swamp forests, but in many areas the original vegetation has been severely modified by human activity (70% of mangrove areas in Mahakam delta converted to shrimp-ponds between 1980-2000).

One of the best studied modern delta systems in SE Asia is the Mahakam Delta of East Kalimantan. It is a classic example of a mixed tide-fluvial- dominated system, with relatively straight distributary channels that bifurcate in downstream direction, and with meandering tidal channels (Figure I.4.4).

A series of pioneering studies on the modern Mahakam Delta were by the late George Allen at Total (1976-1998). Other notable papers include Carbonel et al. (1987), Gastaldo et al. (1992, 1995), Roberts and Sydow (1996, 2003), Sydow (1996), Wiweko and Giriansyah (2000), Storms et al. (2005), Lambiase et al. (2010, 2015, 2017), Salahuddin Husein (2005 2011, 2013) and Bachtiar et al. (2010).

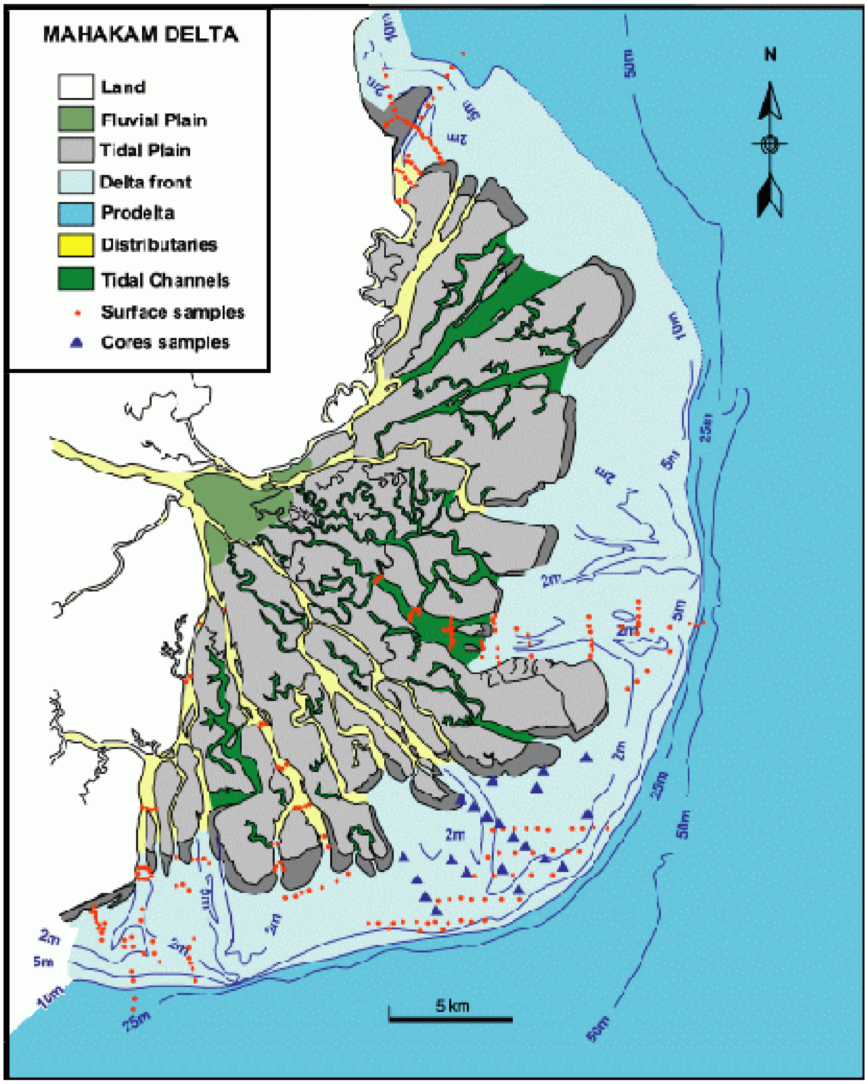


Figure I.4.4. The Mahakam Delta of East Kalimantan (figure from Lambert, 2003).

It may be noted that the modern Mahakam delta formed only in Late Holocene time, since the major sea level rise after the Last Glacial Maximum. It is a much smaller system than the underlying Middle Miocene-Pleistocene Paleo-Mahakam delta complex (e.g. Figure I.4.5.). Also, the Mahakam River/ Delta today does not feed any of the slope channels and submarine fans along the adjacent Makassar Strait margin, that are all of Pleistocene and older ages (Saller et al. 2003, 2004, 2006, 2012, 2013).

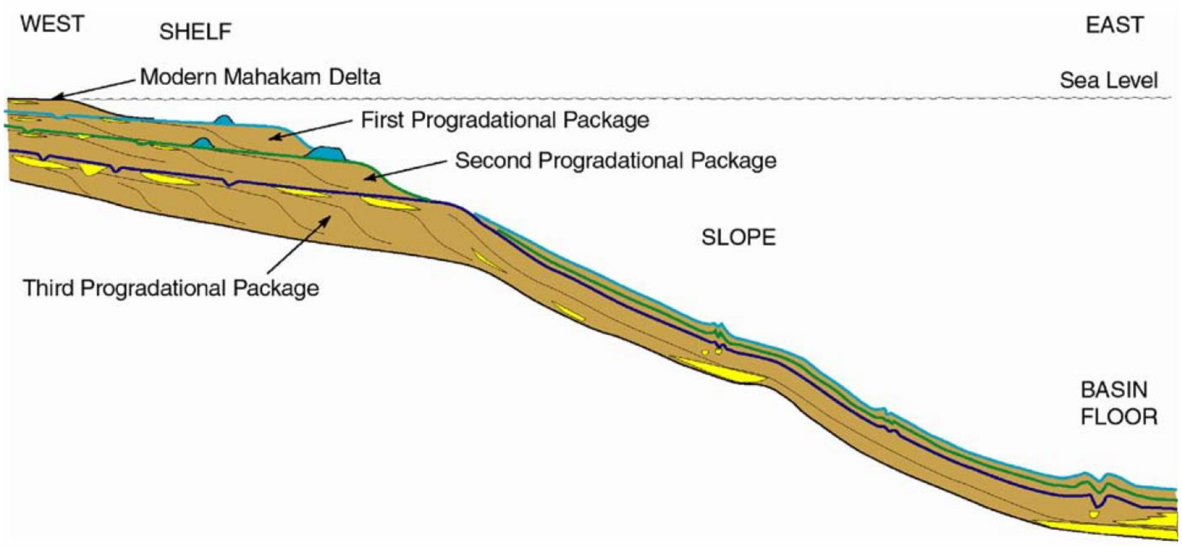


Figure I.4.5. Schematic cross section of Upper Pleistocene (0- 270 ka) stratigraphy of the offshore Mahakam Delta- Kutei basin, East Kalimantan. The modern Mahakam delta is underlain by several much larger Pleistocene 'lowstand delta' systems that extended farther basinward, and that were connected to slope channels and basin floor fan depositional systems (Saller et al. 2003).

Storms et al. (2005) noted that the present day sediment load of the Mahakam River is insufficient to explain the sediment volume of subaerial and subaqueous Mahakam delta, suggesting hydraulic conditions in the past may have been different. Geologists from Total noted that Late Miocene Paleo-Mahakam delta sediments are often coarser grained, with more high-energy fluvial flooding events, have higher sand percentages and show less tidal influence (Wiweko and Giriansyah, 2000).

Except for the Solo River delta of NE Java, fluvial-dominated 'bird-foot' deltas (but partly a man-made feature) are rare in SE Asia. Instead, most of the Indonesian deltas are heavily influenced by tidal processes (Mahakam, Rajang, Fly, Mekong), as expressed by widely flaring distributary channel mouths. The Baram Delta of NW Borneo is a wave-tide dominated delta system (Lambiase 2002 and others). Some of the small deltas along the North coast of Java are also wave dominated systems.

Most of the modern (Holocene) delta systems of Indonesia have been in their present positions only for ~6000 years, when the rate of Holocene sea level rise after the Last Glacial Maxumum lowstand started to slow down. Older Pleistocene delta systems are now buried on the Sunda Shelf and along the shelf margins (e.g. Molengraaff paleo-delta)

Pleistocene 'shelf-margin lowstand deltas'

Large, but probably relatively short-lived and now submerged 'lowstand delta' systems formed seaward of the present-day deltas around the Sundaland shelf margins during Pleistocene glacial lowstand intervals. Some of these have been studied:

- at the North edge of Sunda Shelf/ S side of South China Sea (Paleo-Mekong, Molengraaff River, Paleo-Sunda River, etc.) (Hanebuth et al. 2003)
- at the East side of Java Sea platform/ Flores Sea (Paleo-Barito?)
- at the NW end of Malacca Straits/ Andaman Sea (fed by confluent Sumatran and Malay Peninsula rivers) (Emmel and Curray 1982).
- East Kalimantan/ Makassar Straits: Paleo-Mahakam (Crumeyrolle et al. 2003, 2007).

Oligo- Miocene delta systems

Large delta systems formed along parts of the Late Oligo-Miocene margins of Sundaland and the Late Paleogene Sundaland intra-cratonic rift basins. Numerous papers on these systems are in the Bibliography, under the respective regions. These delta systems formed the main hydrocarbon reservoir formations in:

- Central Sumatra: Sihapas/ Lakat delta system(s);
- South Sumatra: Early Miocene Talang Akar delta system;
- NW Java basin: Early Miocene Talang Akar/ Lower Cibulakan delta,
- NE Java (Middle Miocene Ngrayong System)

- East Kalimantan Kutai, Sangatta and Tarakan Basins: Middle Miocene- Pliocene systems (Cibaj et al. 2006-2015) papers).

Quaternary glacial- interglacial changes

Most of Indonesia today is in the tropical- humid climate belt. This means that, without human interventions, most of the land areas would be covered by tropical lowland and montane rainforests. Numerous studies on Quaternary pollen, microfaunas and sediment types tend to agree that glacial periods were different:

1. average temperatures in equatorial regions was colder by 3-4°C during glacial periods (Verstappen 1982, Visser et al. 2003, 2004);
2. increased aridity and seasonality over most of Indonesia, causing an increase in savanna vegetation and a decrease and fragmentation of tropical rainforests (Verstappen 1975, 1976, 1982, Heaney 1991, Van der Kaars, Flenley?, Morley? Barmawidjaja et al. 1993, Gathorne-Hardy et al. 2002);
3. thinning of the vegetation cover increased physical erosion over chemical weathering, generating more coarse-grained erosional products (Verstappen 1975, 1976, 1982, Liu et al. 2012);
4. eustatic sea level was lowered by up to -125m, causing river channels incision, basinward shift in sedimentation areas, with an increase in sediments reaching the shelf edge, feeding submarine fan systems.

In the Pleistocene of Thailand the deposition of widespread alluvial fans and upland river terraces was tied to glacial periods of reduced forest cover and increased coarse sediment production. A similar situation has been described from Sumatra (Verstappen 1975)

Today we live in an interglacial period of high sealevel, following a period of rapid Holocene sea level rise of probably >120m. This means that today may not be typical of most of geologic time:
- land areas are rimmed by relatively wide continental shelves, which are drowned lowstand floodplains;
- relatively widespread Holocene reefal carbonate provinces, brackish mangrove and freshwater peat swamps;
- little or no land-derived sediment reaches the outer shelf and deep marine basins (e.g. Gayet et al. 1990).

Some suggested reading- Modern environments *(not a complete listing of all relevant papers)*

General text books:	*Van der Stok et al. 1897, 1922, Ecology of Indonesia series, Gupta 2005*
Oceanographic Expeditions:	*Expedition Reports: Challenger (Brady 1884, etc.), Siboga (Weber 1902), Snellius (Kuenen 1935, etc.) and Snellius II (Van Hinte et al. 1989)*
Oceanography, Marine geology:	*Molengraaff 1922, 1930, Kuenen 1950, Wyrtki 1961, Tomascik et al. 1997*
Indonesian Throughflow:	*Kuhnt et al. 2004, Gordon et al. 1996-2005, Tillinger 2011, Sprintall et al. 1999-2014, Susanto et al. 2001-2012, Waworuntu et al, 1999-2001 and many others*
Sediment yields	*Milliman et al. 1995, 1999, Cecil et al. 2003, Suggate and Hall 2003, Alongi et al. 2013.*
SE Asia deltas:- general	*Nummedal et al. 2003, Sidi et al. 2003, Woodroffe 2000, 2005,*
Mahakam	*G. Allen et al. 1976-1998, Carbonel et al. 1987, Gastaldo et al. 1992, 1995, Roberts and Sydow 1996, 2003, Sydow 1996, Wiweko and Giriansyah 2000, Storms et al. 2005, Lambiase et al. 2010, 2015, 2017, Salahuddin Husein 2005 2011, 2013, Bachtiar et al. 2010)*
Baram, Rajang	*Staub and Esterle, 1993, Staub et al. 2000, Staub and Gastaldo 2003, Lambiase et al. 2002, 2003, 2013, Lambiase and Cullen 2012, 2013, Saller and Blake 2003*
Mekong	*Ta et al. 2002, 2005, Tanabe et al. 2003, Proske et al. 2010, 2011, Hanebuth et al. 2012;*
Fly River	*Dalrymple et al. 2003*
Molengraaff paleo-delta	*Hanebuth et al. 2003, Wong et al. 2003.*

I.5. SE Asia Carbonates, Coral Reefs

This sub-chapter I.5 of Bibliography 7.0 contains 260 papers on both modern carbonate depositional environments and carbonate distribution in the fossil record of SE Asia. Many additional papers on carbonate formations are in the chapters of the regions in which they are located.

Modern coral reefs/ carbonates

Modern corals and coral reefs are widespread across Indonesia/ SE Asia. In fact, Eastern Indonesia is commonly viewed as a marine 'center of origin', meaning the area of highest biodiversity of corals and other marine life (Figure I.5.1; Bellwood et al. 2005, Keith et al. 2013 and others). Some authrs claimed over 500 coral species to be present in the Indonesian region (e.g. Bellwood 2005), but after some recent taxonomic revisions that number may be closer to 320 species (Johnson et al. 2015).

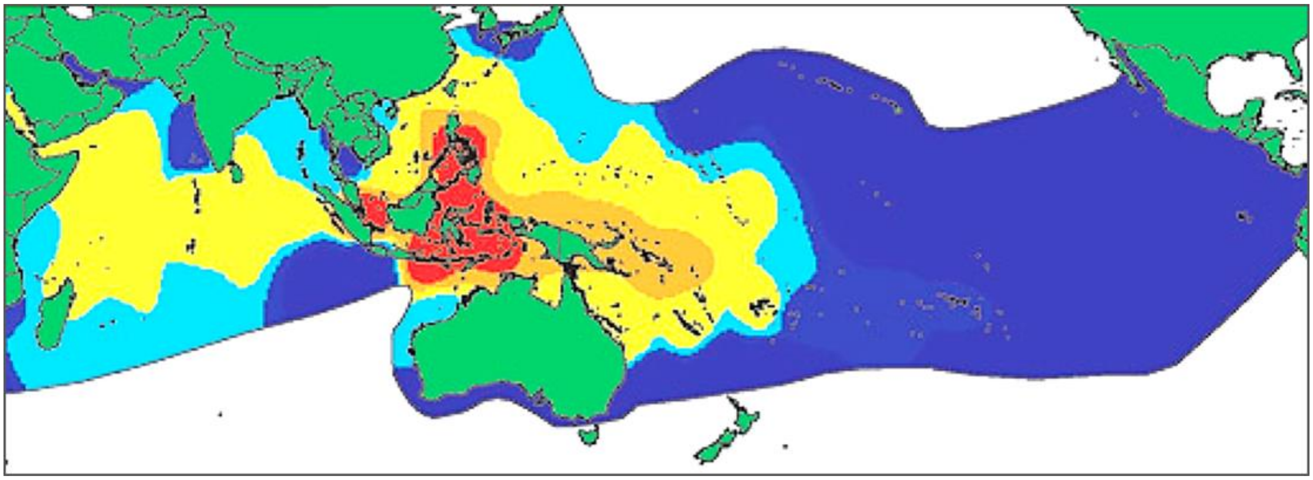


Figure I.5.1. The East Indonesia- South China Sea- Philippines 'hotspot' area boasts the highest number of coral species in the world (red area= >500 species; Bellwood et al. 2005).

The Indonesia archipelago has long been a research area for the study of modern coral reefs. The most comprehensive review of modern coral reefs at 31 areas across Indonesia is by Kuenen (1933). Other early papers were by Wichmann (1912), Molengraaff (1922, 1930), Gerth (1925, 1930), Verweij (1930, 1931), and Umbgrove (1928-1947). More recent studies of coral reefs from a geological perspective include Scrutton (1975, 1976), Longman et al. (1993), Jordan (1998), Park et al. (2010), etc..

Corals are known to thrive primarily in tropical, shallow marine waters (photic zone; typically <40-100m water depth; Verweij 1930, 1931) that are clear and of normal salinity. Modern reefs are generally not found far outside ~32° North and South of the Equator, but some Paleogene-Miocene reef corals appear more widely distributed than today (up to ~50°N; Gerth 1930).

Coral reefs generally do not develop near rivers/ deltas, due to the influx of muddy sediments, nutrients and fresh water, in areas that may be viewed as marine 'ecological deserts'. Excessive wave actions also inhibits coral growth (Moll 1986).

Some coral species, especially solitary corals, survive in deep water, as was demonstrated by dredgings of the Challenger and Snellius marine expeditions in Indonesian deep waters in the late 1800's and early 1900's.

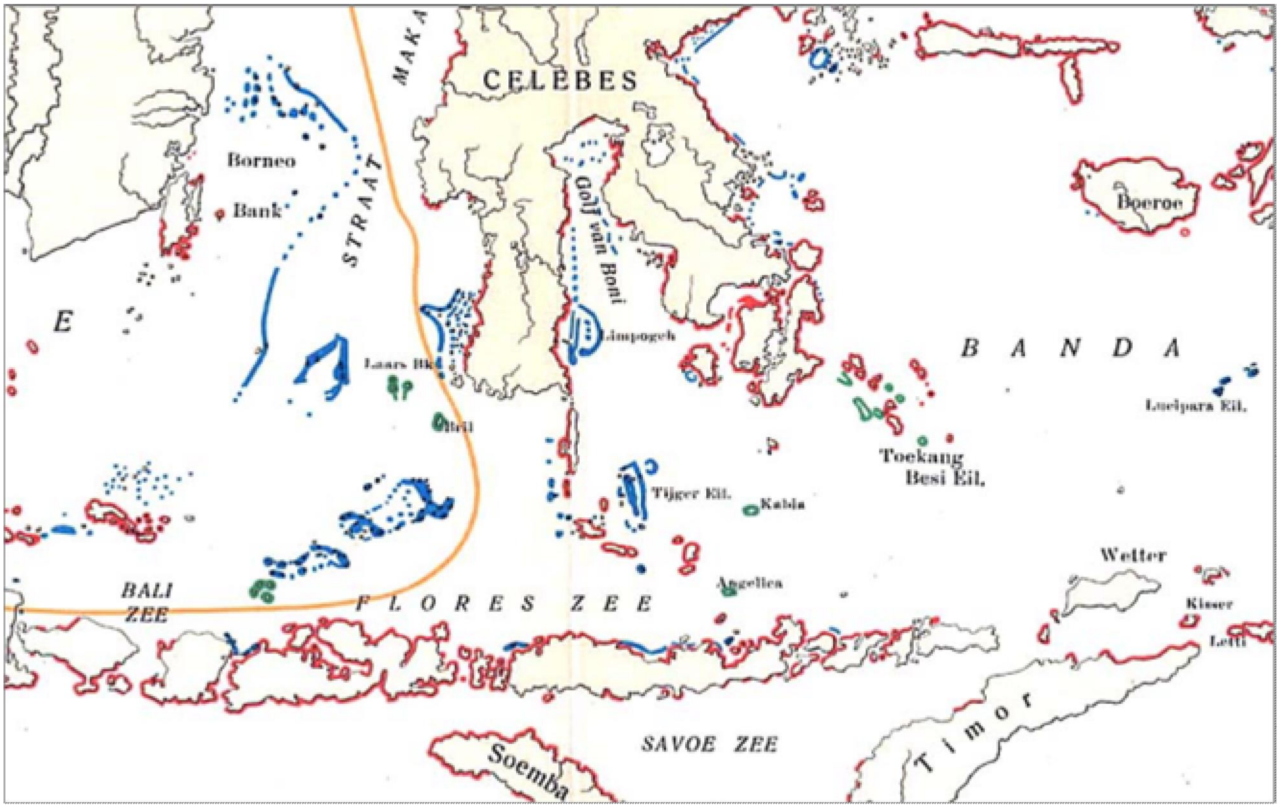


Figure I.5.2. Detail of Molengraaff (1922) map of modern distribution of coral reefs, all formed as response to recent sea level rise. Uplifted coral reefs are common East of the yellow line. Red = fringing reefs, Blue = barrier reefs and atolls

During some time intervals, or in certain areas, carbonates formed that are dominated by other organisms:

1. Larger foraminifera banks: Eocene- Oligocene limestones in Indonesia are often dominated by larger foraminifera, with or without coralline algae (Wilson and Rosen 1998). Examples include Eocene *Nummulites* limestones and Permian fusulinid limestones. Such facies have been called 'foramol' by Wilson and Vecsei (2005))
2. *Halimeda*- algae buildups: The presence of modern *Halimeda* reefs in the East Java Sea were attributed to high-nutrient influx from upwelling along the Indonesian Throughflow (Roberts)
3. Carbonates dominated by rhodolit algae appear to be relatively common, or dominant, in the Middle Miocene of the tropical Pacific and Indonesia (Bourrouilh and Hottinger 1988, Halfar and Mutti 2005);
4. Sponge- microbial reefs are most common in Triassic and Jurassic times.

Tertiary carbonates

Tertiary carbonates are widespread across Indonesia, especially of Late Eocene and latest Oligocene- Middle Miocene ages. Numerous papers on these formations are in the Bibliography, either in this chapter, but mainly under the respective regions.

Comprehensive overviews of the Tertiary limestones in the Indonesian region are by Moyra Wilson (2002, 2008, 2011, 2012, etc.). Other 'classics' include Fulthorpe and Schlanger (1989),

There are numerous oil and gas fields in Oligocene-Miocene reefal buildup reservoirs in the Cenozoic basins of Indonesia: Natuna Basin, North and South Sumatra, NW Java, East Java, Java Sea, West Sulawesi, East Kalimantan, Makassar Straits, West Papua). Similar carbonate plays are found around Indonesia: offshore Sarawak (Luconia province), The Philippines, offshore Vietnam and the Gulf of Papua. Renewed interest in Tertiary reefal limestone exploration came with new oil and gas discoveries in the East Java Basin in the early 2000's.

Miocene carbonate buildups and platforms are also known from the margins of NW Australia (Davies et al. 1989) and NE Australia (Ehrenberg 2004, 2006, Eberli et al. 2010), but no hydrocarbon accumulations have been identified there yet.

Pre-Tertiary carbonates

Pre-Tertiary carbonates are relatively rare in Indonesia. Most of the references on individual carbonates are found in the chapters on areas in which they occur.

Late Carboniferous- Permian

Late Carboniferous- Permian limestones with fusulinid foraminifera are known from Sumatra, Kalimantan, West Sarawak (Terbat Limestone) and Timor (papers by Fontaine, etc.).

The Early-Middle Permian of West Sumatra includes probably the only true reefal Permian limestones in Indonesia (Guguk Bulat, W Sumatra).

Late Triassic

Across the Tethys region Triassic sponge and coral reefal limestones are most common in the Norian and Rhaetian (Flugel 1982, 2002, Bernecker 2005,). This observation may also be valid for the Indonesian region.

Late Triassic shallow water carbonates have been reported from Sumatra (Gafoer and Fontaine 1989), Bangka (De Neve and De Roever 1947), 'Fatu Limestones' of Timor (Vinassa de Regny 1915, Flugel 2002, Haig et al. 2007), East Sulawesi (Cornee et al. 1994, 1995, Martini et al. 1997), Buru (Gerth 1910, Wanner 1923), Seram (Wanner et al. 1952, Martini et al. 2004), Banda Sea (Sinta Ridge ;Villeneuve et al. 1994) and the Kubor terrane of Papua New Guinea (Skwarko et al. 1976, Kristan-Tollman 1986, 1989).

Fractured Upper Triassic limestones are hydrocarbon reservoirs on Seram Island (Kemp et al. 1992, 1995, Nilandaroe et al. 2001, 2005) (but commonly erroneously called Jurassic; Charlton and Van Gorsel 2014).

Late Jurassic

Late Jurassic muddy carbonate mounds and are present in West Sumatra (Beauvais et al. 1985, Gafoer and Fontaine 1989) and NW Kalimantan- SW Sarawak (Bau Limestone). Deep water pelagic limestones of these ages, often with calpionellids, are relatively widespread across Eastern Indonesia (East Sulawesi, Timor, Seram, Buru, etc.).

Early Cretaceous

Early Cretaceous shallow marine carbonates with *Orbitolina* are known from West and South Sumatra ('Woyla Terranes'), Central Java and Kalimantan.

I. REGIONAL GEOLOGY

I.1. Indonesia Regional Geology

Aadland, A.J. & R.S.K. Phoa (eds.) (1981)- Geothermal gradient map of Indonesia, 2nd ed.. Indon. Petroleum Assoc. (IPA), Spec. Publ., p. 1-43.
(Compilation of temperature data from petroleum wells in Indonesia. With two map sheets 1: 2,500,000. See also updated version by Thamrin & Mey, 1987)

Abdurrachman, M., S. Widiyantoro, B. Priadi, M.Z.A. Alim & A.H. Dewangga (2015)- Proposed new Wadati-Benioff zone model in Java-Sumatra subduction zone and its tectonic implication. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-376, 4p.
(Previous models of Wadati Benioff Zone (derived from earthquake hypocenters) in Java- Sumatra deemed too simple. In Java hypocenter depths recorded >500 km, while in Sumatra earthquakes all <300 km deep. In C and E Java area aseismic area between 300-500 km interpreted as tear zone in subducting plate)

Abendanon, E.C. (1914)- Geologische schetskaart van Nederlandsch Oost-Indie, schaa1:2,500,000. Koninkl. Nederlands Aardrijkskundig Genootschap, Smulders, 's-Gravenhage, Toelichting, p. 1-6 + 6 map sheets.
(online at: https://nl.wikipedia.org/wiki/Wikipedia:GLAM/Expedities/Mediadonaties#/media/File:UB_Utrecht_-_CARTO_II_L_2_-_1914.jpg)
('Geological overview map of the Netherlands East Indies'. First geological overview map of Indonesia, 120x225cm, commissioned by Netherlands Royal Geographical Society. Compiled from published and unpublished maps by many authors. Java and Sumatra rel. complete, but much of Kalimantan, Sulawesi and New Guinea still uncharted territory)

Abendanon, E.C. (1914)- Grossfalten im Niederlandisch-Ostindischem Archipel. In: Die Grossfalten der Erdrinde, Chapter 2, Brill, Leiden, p. 38-57.
('Mega-folds in the East Indies Archipelago'. Chapter in Abendanon's 183-page book on his global tectonic theory of 'mega-folds': recently uplifted mountain chains, caused by shrinking of Earth globe, accompanied by extensional central rifts, gravity sliding, etc. Examples of 'mega-folds' in Indonesia in Sulawesi, Timor and Sumatra. In C Sulawesi Mountain chain W of Lake Poso looks like almost flat peneplain now uplifted to 2000m, cut by ~N-S faults/ rift valleys like Poso Depression. Timor also recently uplifted foldbelt with central graben. Etc. Very few illustrations)

Abendanon, E.C. (1915)- De geotektonische positie van de Nederlandsch-Indischen Archipel. In: Handelingen XV Nederlandsch Natuur- Geneeskundig Congres, Kleynenberg, Haarlem, p. 510-523.
('The geotectonic position of the Netherlands Indies Archipelago'. Old tectonic hypotheses of Abendanon including idea that distribution of old schists across Indonesia suggests that in geologically early periods the entire Indonesian Archipelago was occupied by mainland with high mountain chains. In C Sulawesi old fold trends E-W, Neogene folding more N-S trending. Whimsical shapes of Sulawesi and Halmahera can be explained by their location at junction of three geotectonic components)

Abendanon, E.C. (1919)- Aequinoctia, an old Palaeozoic continent. J. Geology 27, 7, p. 562-578.
(Early tectonic interpretation of Indonesia. Presence of crystalline schists across E Indonesia suggests area from Borneo to New Guinea may all be parts of one ancient continent, here named Aequinoctia, extending from Sulawesi to Tasmania)

Adinegoro, A.R. Udin (1973)- Stratigraphic studies by the Indonesian Petroleum Institute (LEMIGAS). United Nations ECAFE, CCOP Techn. Bull. 7, p. 55-74.
(Review of Cenozoic stratigraphic successions in NE Java, Jambi-Sumatra, NE Sumatra and E Kalimantan. One of first attempts to tie these local stratigraphies to global low latitude planktonic foram zonations)

Ali, J.R. & R. Hall (1995)- Evolution of the boundary between the Philippine Sea plate and Australia: paleomagnetic evidence from eastern Indonesia. Tectonophysics 251, p. 251-275.

(New paleomag from Sorong Fault Zone, Obi and Taliabu. Sula Platform Coniacian- Santonian paleolatitude at 19°± 6°, similar to Misool, suggesting Sula/Taliabu and Misool parts of single microcontinent, >10° farther N than expected if attached to Australia, implying region separated from Australia before Late Cretaceous. Obi contains rocks of Philippine Sea and Australian origin. Volcanic arc at S edge Philippine Sea Plate collided with New Guinea at ~25 Ma, changing Philippine Sea-Australian plate boundary from subduction to strike-slip)

Ali, J.R., S.J. Roberts & R. Hall (1994)- The closure of the Indo-Pacific ocean gateway: a new plate tectonic perspective. In: F. Hehuwat et al. (eds.) Proc. Int. Workshop Neogene evolution of Pacific Ocean gateways, IGCP-355, Bandar Lampung 1993, p. 10-20.
(online at: http://searg.rhul.ac.uk/pubs/ali_etal_1993_Indo-Pacific_Gateway.pdf)
(Reconstructions of W Pacific 45-10 Ma. Area N of Sorong Fault Zone ~40° CW rotation and 15° N-ward motion since ~25 Ma. Prior to 22 Ma collision between Australia (New Guinea)- Philippine Sea open Equatorial seaway between Indian and Pacific oceans. Connection mostly closed by initiation of Halmahera Arc at 11 Ma)

Alzwar, M. (1986)- Geothermal energy potential related to active volcanism in Indonesia. Geothermics 15, p. 601-607.
(90 geothermal areas identified in Indonesia, mostly located in active volcanic belts)

Amiruddin (2007)- Permo-Triassic magmatic arc and back arc basins of Gondwana land with reference of Eastern Indonesia, Papua New Guinea and Eastern Australia. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, JCB2007-019, 1p. *(Abstract only)*
(Permian-Triassic granitoid plutons and volcanics exposed in E Indonesia, in belt from Banggai Sula in W through Birds Head (Netoni, Anggi, Maransabadi), Birds Neck, Central Range of W Papua (Eilanden, Idenburg) to PNG (Strickland and Kubor Granodiorites) in E, then belt continues S to E Australia through Cape York, NE Queensland to New England Fault Belt. Syn-collision and volcanic arc I and S-type granites)

Amiruddin (2009)- A review on Permian to Triassic active or convergent margin in southeasternmost Gondwanaland: possibility of exploration target for tin and hydrocarbon deposits in the Eastern Indonesia. J. Geologi Indonesia 4, 1, p. 31-41.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20090104.pdf)
(Permian-Triassic magmatic-volcanic belts signify active Paleo-Pacific margin along New Guinea (Banggai, Netori, Anggi, Kwatisor, Kubor, etc. granites)- E Australia part of SE Gondwanaland. Granitic plutons of S-type and may be tin-bearing. Back-arc basins of S Papua and Galille-Bowen-Gunnedah-Sydney basins filled by fluvial, fluvio-deltaic to marine Permian-Triassic sediments, locally with coal, unconformably overlain by marine Jurassic-Cretaceous)

Anderson, R.N. (1980)- Update of heat flow in the East and Southeast Asian seas. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands, 1, American Geophys. Union (AGU), Geophys. Monograph Ser. 23, p. 319-326.

Angelich, M.T., R.L. Brovey, M.E. Ruder & C.C. Wielchowsky (1986)- Use of Seasat-derived free-air gravity to interpret the structure of Southeast Asia. Proc. 15th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 1, p. 1-18.
(In areas of low sea-bottom relief SEASAT-derived gravity data can be treated qualitatively as low-pass-filtered Bouguer gravity field. Examples from SE Asia)

Astjario, P. (1995)- A study of the uplifted coral reef terraces in the eastern part of Indonesia. In: J. Ringis (ed.) Proc. 31st Sess. Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Kuala Lumpur 1994, 2, p. 116-121.

Atkinson, C., T. Wain, H. Sugiatno & S. Hayes (2017)- Hidden basins and undrilled anticlines: The legacy of early oil exploration in Indonesia. SEAPEX Exploration Conference 2017, 9, Singapore, 36p.

Audley-Charles, M.G. (1965)- Permian palaeogeography of the northern Australia-Timor region. Palaeogeogr. Palaeoclim. Palaeoecology 1, p. 297-305.
('Autochthonous' Permian rocks of Timor believed to be detritus from Kimberley region of N Australia. This conflicts with suggestions of large crustal dislocations immediately N of Australia recently advocated on basis of regional paleomagnetic studies)

Audley-Charles, M.G. (1966)- Mesozoic palaeogeography of Australasia. Palaeogeogr. Palaeoclim. Palaeoecology 2, p. 1-25.
(Broad Triassic- Cretaceous paleogeographic sketch maps of Indonesia- N Australian region, following recent studies on Timor. Rather different from more recent work (incl. Audley-Charles 1988, etc.; e.g. conclusions: 'the spatial relationships between N Australia, Timor and the other parts of the archipelago have not greatly altered since the Middle Triassic' and 'the contention of some authors that continental drift has occurred between the N coast of Australia and SE Asia, is strongly contradicted by stratigraphic evidence, and by paleogeographic history of the region as developed in this article')

Audley-Charles, M.G. (1976)- Mesozoic evolution of the margins of Tethys in Indonesia and The Philippines. Proc. 5th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 2, p. 25-52.

Audley-Charles, M.G. (1978)- The Indonesian and Philippine archipelagoes. In: M. Moullade & A.E.M. Nairn (eds.) The Phanerozoic geology of the world, II, The Mesozoic, Elsevier, p. 165-207.

Audley-Charles, M.G. (1981)- Geological history of the region of Wallaceôs Line. In: T.C. Whitmore (ed.) Wallaceôs Line and plate tectonics. Clarendon Press, Oxford, p. 5-25.

Audley-Charles, M.G., D.J. Carter & A.J. Barber (1974)- Stratigraphic basis for tectonic interpretations of the Outer Banda Arc, Eastern Indonesia. Proc. 3rd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 25-44.
(Outer Banda Arc islands (Timor, Tanimbar, etc.) are imbricated N margin of Australian shelf and slope on which overthrust Asian elements and major olistostrome have been superimposed, all emplaced from N)

Audley-Charles, M.G., D.J. Carter & J.S. Milsom (1972)- Tectonic development of Eastern Indonesia in relation to Gondwanaland dispersal. Nature Physical Sci. 239, 90, p. 35-39.
(Reconstruction of Banda Arc region. Timor formed part of Australian continental margin since at least E Permian. Unusual Early Cretaceous reconstruction with Borneo- W Sulawesi- Sumatra- Java-Indochina and India all still part of Gondwanaland and attached to W Australia))

Audley-Charles, M.G. & R. Harris (1990)- Allochthonous terranes of the Southwest Pacific and Indonesia. Philos. Trans. Royal Soc. London A331, p. 571-587.
(Mainly on Timor island. Deformed Australian margin, overridden by three allochthonous nappes)

Bachri, S. (2013)- Peran system tunjaman, sesar mendatar transform dan pemekaran terhadap sebaran cekungan sedimen di Indonesia. J. Geologi Sumberdaya Mineral 14, 1, p. 19-27.
(‘The role of subduction systems, transform faults and rifting in the distribution of sedimentary basins in Indonesia’. Basins in W dominated by Tertiary basins and mainly controlled by subduction systems. In E Indonesia Pre-Tertiary and Tertiary basins with semi-concentric pattern and random pattern, controlled transform faults and transport of continental plates originating from Australia)

Badings, H.H. (1936)- Het Palaeogeen in den Indischen Archipel. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie 11, 3, p. 233-292.
('The Paleogene in the Indies Archipelago'. Overview of Paleogene sediments in Indonesia and Philippines. With outcrop distribution/ basic paleogeographic maps for Tertiary a, b, c and d (Eocene- Oligocene). Useful compilation, but harshly criticized in series of papers by Van Bemmelen, Koolhoven, Ubaghs, etc. in 1936)

Baillie, P., J. Decker, D. Orange, Phil Teas & N. Wagimin (2009)- IndoDeep: new insights into the geology of Indonesia. Proc. 2009 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, p. 1-50. *(Abstract + Presentation)*
(Three 'conventional' paradigms in areas of TGS IndoDeep project: Sumatra Fore-arc totally unprospective, (2) there is not sufficient section in Bone Bay to have generated hydrocarbons; (3) Cenderawasih Bay is underlain by oceanic crust and is unprospective (pretty pictures of seismic lines and seafloor bathymetry ,but no explanations of new insights; JTvG))

Baker, S., R. Hall & E. Forde (1994)- Geology and jungle fieldwork in Eastern Indonesia. Geology Today 10, 1, p. 18-23.
(Brief account on fieldwork on coastal outcrops of Halmahera region by University of London)

Balazs, D. (1968)- Karst regions in Indonesia. Karszt-Es Barlangkutatas 5, Budapest, Globus nyomda, p. 3-57.
(online at: http://epa.oszk.hu/02900/02967/00005/pdf/EPA02967_karszt_es_barlangkutatas_1963-1967_05_003-062.pdf)
(Review of limestone karst development in Indonesia (mainly in Tertiary limestones). Tropical karst areas generally controlled by heavy torrential tropical rains and characterized by predominantly positive landforms (conical and pinnacle karst hills), while depressions (sinkholes, etc.) more common expression of dissolution in areas of slow rains in temperate belt)

Balazs, D. (1971)- Intensity of the tropical karst development based on cases of Indonesia. Karszt-Es Barlangkutatas 6, Budapest, Globus nyomda, p. 33-67.
(online at: http://epa.oszk.hu/02900/02967/00006/pdf/EPA02967_karszt_es_barlangkutatas_1968-1971_06_033-068.pdf)
(Discussion of karst weathering in Gunung Saribu (W Sumatra; Permo-Carboniferous), Gunung Sewu (S Mountains) and other localities on Java and SW Sulawesi (Maros))

Barber, A.J. (1985)- The relationship between the tectonic evolution of Southeast Asia and hydrocarbon occurrences. In: D.G. Howell (ed.) Tectonostratigraphic terranes of the Circum-Pacific region, Circum-Pacific Council Energy and Mineral Resources, 1, Houston, p. 523-528.
(SE Asia consists of cratonic Sundaland core of continental fragments that had stabilized by end-Mesozoic. Additional terranes added through Late Mesozoic- Tertiary in Sumatra, Borneo, E Indonesia and Philippines. Early Tertiary widespread extension, followed by Late Tertiary compression, resulting in favorable locations for hydrocarbon generation and accumulation)

Barber, A.J. (1993)- Dispersion, subduction and collision in Eastern Indonesia. Proc. 22nd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 1, p. 23- .

Barber, A.J. (2013)- The origin of melanges: cautionary tales from Indonesia. J. Asian Earth Sci. 76, p. 428-438.
(Description of two examples of melanges from Banda arc (Timor Bobonaro melange) and Sunda arc (Nias, Oyo melange, with common ophiolitic blocks). Evidence from Australian continental shelf S of Sumba shows large quantities of diapiric melange generated in accretionary complex. Comparable diapirs in Timor accreted at earlier stage. Evidence from Timor and Nias shows diapiric melange can be generated well after initial accretion process was completed)

Barber, A.J. & S. Wiryosujono (eds.) (1981)- The geology and tectonics of Eastern Indonesia. Proc. CCOP-IOC Working Group Meeting, Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, p. 1-415.
(Conference volume with many benchmark papers on tectonics of Eastern Indonesia)

Barley, M.E., P. Rak & D. Wyman (2002)- Tectonic controls on magmatic-hydrothermal gold mineralization in the magmatic arcs of SE Asia. In: D.J. Blundell, F. Neubauer & A. von Avadt (eds.) The timing and location of major ore deposits in an evolving orogen, Geol. Soc. London, Spec. Publ. 204, p. 39-47.

(Most gold deposits in SE Asian arcs formed during tectonic reorganization intervals rather than steady-state subduction: (1) 25 Ma collision of Australian craton with Philippine Sea plate arc; (2) M Miocene/ 17 Ma mineralization following maximum extrusion of Indochina and cessation of S China Sea spreading; (3) majority and largest deposits formed since 5 Ma during plate reorganization with change in relative motion between Indian-Australian and Pacific plates between 5- 3.5 Ma following Philippine arc- Eurasia collision in Taiwan)

Baumann, P. (1982)- Depositional cycles on magmatic and back arcs: an example from Western Indonesia. Revue Inst. Francais Petrole 37, 1, p. 3-17.
(Five main depositional cycles in Eocene- Recent of Java, Sumatra: (1) M Eocene- E Oligocene (P11-P17), followed by uplift, block faulting, volcanism; (2) Latest Oligocene- E Miocene (P22/N3- N7?, ending with volcanism- uplift?; (3) late E Miocene- M Miocene (N8- N10-11; poorly known); (4) M- Late Miocene (N11/12-N14/17), followed by uplift, faulting; (5) Pliocene-Recent, starting with major transgression at Miocene-Pliocene boundary, N18. Major Late Pliocene- Recent volcanic phase)

Beck, R.H. & P. Lehner (1975)- Oceans, new frontiers in exploration. American Assoc. Petrol. Geol. (AAPG) Bull. 58, p. 376-395.
(Vintage regional seismic profiles and interpretation NW Australia- Sunda Arc)

Becker, M., E. Reinhart, S. Bin Nordin, D. Angermann, G. Michel & C. Reigber (2000)- Improving the velocity field in South and South-East Asia: the third round of GEODYSSEA. Earth Planets and Space 52, p. 721-726.
(online at: www.terrapub.co.jp/journals/EPS/pdf/5210/52100721.pdf)
(Review of GEODYnamics of S and SE Asia (GEODYSSEA) project, a network of 42 GPS stations across SE Asia, observed between 1994-1998)

Beckley, L., L.A. Lawver & T.Y. Lee (1993)- Cenozoic basin formation in Southeast Asia. University of Texas, Austin, PLATES Project, Progress Rept. 62, 16p. *(Unpublished)*

Beltz, E.W. (1944)- Principal sedimentary basins in the East Indies. American Assoc. Petrol. Geol. (AAPG) Bull. 28, 10, p. 1440-1454.
(Vintage Indonesian basins map and basin summaries by Stanvac (Standard Oil NJ) geologist)

Benioff, H. (1954)- Orogenesis and deep crustal structure; additional evidence from seismology. Geol. Soc. America (GSA) Bull. 65, p. 385-400.
(Sunda Arc example of large 'marginal fault', deduced from dipping earthquake zones below volcanic arc, landward dipping at ~35° at intermediate depths of 70-300km, steepening with depth to 61° between 300-700km. Philippine Islands example of similar 'oceanic fault' (now called 'Benioff zones'))

Benson, W.N. (1923)- Palaeozoic and Mesozoic seas in Australasia. Trans. Proc. Royal Soc. New Zealand 54, p. 1-62.
(Old, but still interesting discussion of Australia- E Indonesia paleogeography)

Benson, W.N. (1925)- The structural features of the margin of Australasia. Trans. Proc. Royal Soc. New Zealand 55, p. 99-137.
(Old, but still interesting discussion of tectonics- structure of East Indonesia, NW Australia, etc.)

Berlage, H.P. (1937)- A provisional catalogue of deep-focus earthquakes in the Netherlands East Indies, 1918-1936. Gerlands Beitrage Geophysik 50, p. 7-17.
(First text to notice deep earthquakes in Indonesia are concentrated in plane dipping toward Asian mainland (now known as Benioff zone or Wadati-Benioff zone; should have been named 'Berlage zone'?;JTvG))

Berlage, H.P. (1939)- One hundred deep-focus earthquakes in the Netherlands Indies. Proc. 6th Pacific Science Congress, California, p. 135-138.

Bijlaard, P.P. (1935)- Beschouwingen over de knikzekerheid en de plastische vervormingen van de aardkorst in verband met de geologie van den Oost-Indischen archipel. De Ingenieur in Nederlandsch-Indie 1935, (I), 11, p. 135-156.
('Discussion of buckling potential and plastic deformation of the Earth's crust as related to the East Indies Archipelago'. On the physics of plastic deformation of Earth's crust in the Indonesian region. Expansion of Vening Meinesz' theory of crustal downbuckling)

Bijlaard, P.P. (1936)- De verklaring voor het optreden van zwaartekracht anomalieen, diepzeetroggen, geosynclinalen, gebergtevorming en vulkanisme bij plaatselijke plastische vervorming van de aardkorst. De Ingenieur in Nederlandsch-Indie 1936, (I), 7, p. 93-97.
('The explanation for gravity anomalies, deep sea troughs, geosynclines, mountain building and volcanism near local plastic deformation of the earth's crust'. Reply to Van Bemmelen (1936) critical remarks on Bijlaard (1935) theory)

Bijlaard, P.P. (1936)- Nadere toelichting van mijn theorie der plaatselijke plastische vervormingen op de tektoniek. De Ingenieur in Nederlandsch-Indie 1936, (I), 11, p. 160-170.
(Second part of discussion between Van Bemmelen and Bijlaard on tectonic theory for Indonesian region)

Blom, J. (1934)- Geologische Probleme im Malayischen Archipel. Inaugural-Dissertation Friedrich Schiller University, Jena, p. 1-71.
('Geological problems in the Malayan Archipelago'. Overview of pre-1934 tectonic theories on Indonesia, without new synthesis or opinion)

Blundell, D.J. (2002)- The timing and location of major ore deposits in an evolving orogen; the geodynamic context. In: D.J. Blundell, F. Neubauer & A. von Quadt (eds.) The timing and location of major ore deposits in an evolving orogen, Geol. Soc., London, Spec. Publ. 204, p. 39-47.
(Review of tectonic settings of mineral deposits, with example of SE Asia- W Pacific arc system. In Indonesia all known mineral deposits lie within magmatic arcs and formed during or shortly after magmatic activity, but only 6 out of 15 Cenozoic magmatic arcs are known to contain significant mineralization)

Bock, Y., L. Prawirodirdjo, J.F. Genrich, C.W. Stevens, R. McCaffrey, C. Subarya, S.S.O. Puntodewo & E. Calais (2003)- Crustal motion in Indonesia from Global Positioning System measurements. J. Geophysical Research 108, B8, 2367, p. 1-21.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001JB000324)
(GPS surveys suggest tectonics dominated by interaction of 4 blocks: Sunda Shelf (moves 6 mm/yr SE rel. to Eurasia), S Banda Arc (CW rotation rel. to Sunda and Australia), Birds Head (rapidly moves WSW, subducting beneath Seram Trough) and E Sulawesi (CW rotation, transfering E-W Pacific motion into N-S shortening across N Sulawesi trench. Crustal blocks all experience significant internal deformation)

Boehm, G. (1901)- Aus den Molukken. Zeitschrift Deutschen Geol. Gesellschaft 53, Briefl. Mitteilungen, p. 4-10.
(online at: https://www.biodiversitylibrary.org/item/150066#page/686/mode/1up)
('From the Moluccas'. First brief report by Boehm from his geological travels in E Indonesia in 1900-1901, and first report on Mesozoic fossils in 200 years since 'stone fingers' (belemnites) described by Rumphius. Mainly on visit to S coast of Sula Islands, with M Jurassic dark grey clayey limestones rich in ammonites (Sphaeroceras), belemnites and Inoceramus, also lower Cretaceous with Hoplites. No figures)

Boehm, G. (1902)- Weiteres aus den Molukken. Zeitschrift Deutschen Geol. Gesellschaft 54, Briefl. Mitteilungen, p. 74-78.
(online at: https://www.biodiversitylibrary.org/item/150077#page/796/mode/1up)
('More from the Moluccas'. Continuation of paper above, on visits to Ambon, Buru, Misool. On Ambon Mesozoic sandstone-limestone, etc. Jurassic of Sula and Misool islands with fauna of European character and rel. undeformed. No figures)

Boehm, G. (1904)- Geologische Ergebnisse einer Reise in den Molukken. Proc. Comptes Rendus 9th Int. Geological Congress, Vienna 1903, p. 657-662.
(‘Geological results of a trip in the Moluccas’. Brief, early report on widespread Triassic and Jurassic marine sediments on islands of E Indonesia, noticing similarities of rocks and faunas with those from European Alps)

Boehm, G. (ed.) (1904-1959)- Beitrage zur Geologie von Niederlandisch-Indien. Palaeontographica, Suppl. Vol. IV, 5 vols.
(‘Contributions to the geology of the Netherlands Indies’. Series of mainly paleontological papers from E Indonesia. Listed individually)

Boehm, G. (1906)- Geologische Mitteilungen aus dem Indo-Australischen Archipel I. Neues aus dem Indo-Australischen Archipel, Neues Jahrbuch Mineral. Geol. Palaont., Beilage Band 22, p. 385-412.
('News from the Indo-Australian Archipelago, etc.' Early overview of Mesozoic macrofossil localites in E Indonesia: Sula islands (Jurassic belemnites, Macrocephites, etc.), W Cenderawasih Bay (Wendesi M Jurassic ammonite Phylloceras), New Guinea N Coast (Walckenaer Bay ammonites and Inoceramus), Buru (Jurassic Perisphinctes, Late Triassic Tissotia), Ceram, etc. Remarkable similarities of Molaccas Mesozoic and Spiti Fauna of Himalayas)

Bostrom, R.C. (1984)- Westward Pacific drift and the tectonics of eastern Asia. Tectonophysics 102, p. 359-376.
(Brief overview of tectonic history, involving W-ward displacement of Sundaland, and shared Paleozoic-Mesozoic petroleum systems between N Australia, New Guinea, Timor and other parts of eastern Indonesia)

Bothe, A.C.D. (1932)- Over de phasen van gebergtevorming in het Neogeen van den Indischen Archipel. De Mijningenieur 13, p. 88-92.
('On the phases of mountain formation in the Indies Archipelago')

Bradshaw, M. (2001)- Australia and Eastern Indonesia at the cross-roads of Gondwana and Tethys- the implications for petroleum resources. SEAPEX Expl. Conf. 2001, Singapore, 8p.

Branson, C.C. (1941)- Age of abyssal deposits of East Indian Archipelago. American Assoc. Petrol. Geol. (AAPG) Bull. 41, 2, p. 320-322.
(Brief review of very deep marine deposits in East Indies, including Danau Fm of Borneo (Molengraaff, 1910, 'probably Jurassic', but could be E Cretaceous: JTvG) and Permian, Triassic and Lower Cretaceous abyssal deposits of Timor)

Brouwer, H.A. (1915)- Over de tektoniek der Oostelijke Molukken. Proc. Kon. Akademie Wetenschappen, Amsterdam 24, p. 987-994.
('On the tectonics of the Eastern Moluccas'. Early, brief overview of tectonics of the E Moluccas. See Brouwer (1917) for English version)

Brouwer, H.A. (1916)- Reisbericht omtrent geologische verkenningstochten op verschillende eilanden der Molukken. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 33, p. 83-89.
(‘Travel notes of geological reconnaissance trips to various islands of the Moluccas’)

Brouwer, H.A. (1916)- Geologische verkenningen in de Oostelijke Molukken. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie 3 (Molengraaff issue), p. 31-56.
(online at: https://ia601908.us.archive.org/30/items/verhandelingenva3191geol/verhandelingenva3191geol.pdf)
('Geological reconnaissance in the East Moluccas'. Brief overview of reconnaissance trips in E Indonesia islands)

Brouwer, H.A. (1917)- On the tectonics of the eastern Moluccas. Proc. Kon. Akademie Wetenschappen, Amsterdam 19, 1, p. 242-248.
(online at: www.dwc.knaw.nl/DL/publications/PU00012350.pdf)

(Early review of E Indonesia tectonics. Among recent significant discoveries is the presence of large overthrusts on Timor and adjacent islands, probably continuing along entire outer belt of Banda islands to Babar, Yamdena, Seram and Buru. The Sula Islands, Obi and Misool do not show overthrust structures. No figures)

Brouwer, H.A. (1918)- Phasen der bergvorming in de Molukken. Inaugural speech, Technische Hogeschool Delft (Delft Technical University), p. 1-32.
('Phases of mountain building in the Moluccas'. Early, dated overview of Indonesia tectonics. No maps, figures)

Brouwer, H.A. (1918)- Uber Gebirgsbildung und Vulkanismus in den Molukken. Geol. Rundschau 8, 5-8, p. 197-209.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN00045446X)
('On mountain building and volcanism in the Moluccas'. Brief discussion of geology East Indonesia. First author to note the apparent relationship between extinction of volcanoes in Alor-Wetar sector of the Banda Arc adjacent to mountain-forming processes on Timor)

Brouwer, H.A. (1918)- Kort overzicht onzer kennis omtrent geologische formaties en bergvormende bewegingen in den O.I. Archipel beoosten Java en Celebes. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie 2, p. 293-332.
('Brief overview of our knowledge of the geological formations and mountain building movements in the east Indies archipelago East of Java and Sulawesi'. Early overview of distribution of Paleozoic- Mesozoic- Tertiary rocks across E Indonesia)

Brouwer, H.A. (1919)- On the age of the igneous rocks in the Moluccas. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 21, p. 803-815.
(online at: www.dwc.knaw.nl/DL/publications/PU00012138.pdf)
(On a variety of different age volcanic-plutonic rocks in E Indonesia)

Brouwer, H.A. (1919)- Geologisch overzicht van het oostelijk gedeelte van den Oost-lndischen Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen II, p. 145-452.
(Rel. comprehensive overview of 1917 state of knowledge of East Indonesia geology)

Brouwer, H.A. (1920)- Nieuwere opvattingen omtrent de geologie van den O.I. Archipel. In: Algemeen Ingenieurs Congres, Batavia 1920, Sect. 5, Mijnbouw en Geologie, Mededeeling 12, p. 3-16.
('Newer views on the geology of the East Indies Archipelago'. Brief review of recent developments. No figures)

Brouwer, H.A. (1920)- On the crustal movements in the region of the curving rows of islands in the eastern part of the East-Indian Archipelago. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 22, 7-8, p. 772-782.
(online at: www.dwc.knaw.nl/DL/publications/PU00012027.pdf)
(Curving rows of islands of Moluccas similar to many chains of Alpine structure. Rows of islands of Moluccas may be grouped into (1) zone characterized by outward-directed overthrusts (Timor-Ceram row); (2) marginal zone without overthrust tectonics (Sula-islands, Misool, W New Guinea S of Mac Cluer Bay (= Bintuni) and probably also Kei-islands; (3) inner zone with young active volcanoes)

Brouwer, H.A. (1920)- Die horizontale Bewegung der Inselreihen in den Molukken. Nachrichten Kon. Gesellschaft Wissenschaften Gottingen, Mathem.-Phys. Klasse, p. 172-173.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN002505738)
('The horizontal movement of the island belts in the Moluccas'. Brief response to H. Stille critique of Brouwer (1917) paper on mountain building and volcanism in the Moluccas. Stille questioned presence of important horizontal movements on Timor, Timor, etc., but Brouwer insists they are important)

Brouwer, H.A. (1921)- Some relations of earthquakes to geologic structure in the East Indian archipelago. Bull. Seismological Soc. America 11, 3-4, p. 166-182.

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(Early attempt to explain deep basins and uplifted islands of E Indonesia)

Brouwer, H.A. (1922)- The major tectonic features of the Dutch East Indies. J. Washington Academy Sci. 12, 7, p. 172-185.
(Brief discussion; summary of 1922 lecture)

Brouwer, H.A. (1925)- The geology of the Netherlands East Indies. MacMillan, New York, p. 1-160.
(First 'text-book' on the geology of Indonesia, based on series of lectures at University of Michigan)

Brouwer, H.A. (1926)- Structure of the East Indies. Proc. 2nd Pan-Pacific Science Congress, Australia 1923, p. 784- .

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Brouwer, H.A. (1926)- The Carboniferous and Permian of the Netherlands East Indies. Proc. 2nd Pan-Pacific Science Congress, Australia 1923, 2, p. 1024-1027.

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Brouwer, H.A. (1931)- De stratigraphie van Nederlandsch Oost-Indie, 18. Paleozoic. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geol. Mededelingen 5 (K. Martin memorial volume), p. 552-566.
(online at: http://repository.naturalis.nl/document/549383)
(Overview of occurrences of Paleozoic in Indonesia. Pre-Carboniferous rocks known only from New Guinea. Carboniferous and Permian in N Sumatra, C and S Sumatra, Timor, Savu, Roti, Luang, Babar, New Guinea)

Brouwer, H.A. (1949)- Evolution orogenique ou consolidation prochaine aux Indes orientales. In: Livre jubilaire Charles Jacob, Annales Hebert et Haug, Universite de Paris, 7, p. 31-42.
('Orogenic evolution or next consolidation in the East Indies'. Early review of orogenic history of Indonesia, with special reference to Sulawesi (junction of two arcs) and Timor (with large nappe tectonics))

Brown, J.L. & J.E. McCallum (1997)- An atlas of sealing faults in SE Asia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conf. Petroleum systems SE Asia & Australia, Jakarta 1997, Indon. Petroleum Assoc. (IPA), p. 837-841.

Brunn, J.H. & P.B. Burollet (1979)- Island arcs and folded ranges. In: W.J.M. van der Linden (ed.) Fixism, mobilism or relativism: Van Bemmelenös search for harmony, Geologie en Mijnbouw 58, 2, p. 117-126.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0RGQxdG1sTnNoalE/view)
(Includes chapter on Seram arc and Banda Sea. With Hamilton (1979) one of first to suggest Banda sea formed by longitudinal extension))

Bucking, H. (1904)- Zur Geologie des nordostlichen Indischen Archipels. Sammlungen Geol. Reichs-Museums Leiden, ser. 1, 7, p. 231-253.
(online at: www.repository.naturalis.nl/document/552406)
('On the geology of the NE Indies archipelago'. Brief descriptions of islands Bacan, Mandioli, Kasiruta, Obi Besar, Manipa and Sulabesi. No figures)

Budiman, I., J. Nasution, I. Sobari & W.H. Simamora (2000)- Gravity anomaly map of western part of Indonesia, scale 1:2,000,000. Geol. Res. Dev. Centre (GRDC), Bandung.

Calais, E., L. Dong, M. Wang, Z. Shen & M. Vergnolle (2006)- Continental deformation in Asia from a combined GPS solution. Geophysical Research Letters 33, L24391, p. 1-6.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2006GL028433/epdf)
(New model of Asia tectonic plates relative horizontal motions from GPS measurements)

Cardwell, R.K. (1980)- Geometry of the lithosphere subducted beneath the Eastern Indonesian and Philippine islands as determined from the spatial distribution of earthquakes and focal mechanism solutions. Ph.D. Thesis Cornell University, Ithaca, p. 1-143.
(Mainly two published papers by Cardwell and Isacks (1978) and Cardwell et al. (1980), below)

Cardwell, R.K. & B.L. Isacks (1978)- Geometry of the subducted lithosphere beneath the Banda Sea in Eastern Indonesia from seismicity and fault plane solutions. J. Geophysical Research 83, B6, p. 2825-2838.
(Earthquake data fault plane solutions suggest two lithospheric plates descending into upper mantle beneath Banda Sea: (1) along Banda arc, laterally continuous slab that subducted at plate boundary defined by Java trench-Timor Trough-Aru Trough system; (2) descends to SW to ~100 km depth in Seram Trough region and may be joined to Banda subduction system by W extension of New Guinea Tarera- Aiduna fault zone. Banda arc slab contorted at E end of arc where trench and line of active volcanoes curve NE. Contortion appears to be lateral bend in subducted slab that is continuous from surface to depths of 600 km)

Cardwell, R.K. & B.L. Isacks (1981)- A review of the configuration of the lithosphere subducted beneath the eastern Indonesian and Philippine Islands. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Mtg., Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, p. 29-47.
(Identification of subducting slabs from earthquake data. Seismic zone from Timor Trough to >600km depth below S Banda Basin, but does not appear to be linked to Seram Trough)

Cardwell, R.K., B.L. Isacks & D.E. Karig (1980)- The spatial distribution of earthquakes, focal mechanism solutions and subduced lithosphere in the Philippine and North-eastern Indonesian islands. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands, American Geophys. Union (AGU), Geophys. Monograph 23, p. 1-35.
(Earthquake focal mechanisms show configuration of lithosphere subducted beneath Philippine and NE Indonesian islands and geometry and nature of plate boundaries in region. Philippine region aggregate of island arcs between Philippine Sea Plate and SE Asian Plate, with main deformation along Philippine Fault and opposing subduction zones (Manila Trench, Negros Trench, Cotabato Trench). S-dipping zone of earthquake hypocenters indicates lithosphere of Celebes Basin subducted along W part of N Sulawesi Trench to depth of >200 km beneath N arm of Sulawesi. Convergence between Philippine Islands and W boundary of Philippine Sea Plate along E Luzon Trough and Philippine Trench. S Philippine Trench is young feature)

Carey, S.W. (1975)- Tectonic evolution of Southeast Asia. Proc. 4th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 17-48.
(Tectonic model for SE Asia using the ‘expanding earth’ theory (Carey believed in continental drift, but not in subduction))

Carey, S.W. (1975)- The subduction myth. Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) 2, Singapore, p. 41-69.
(Entertaining discussion by leader of the expanding earth movement. Plate tectonic and Expansion 'tectonic schools' agree on seafloor spreading, but not subduction)

Carey, S.W. (1986)- Geotectonic setting of Australasia. In: R.C. Glenie (ed.) Second South-Eastern Australia oil exploration symposium, Melbourne 1985, Petroleum Expl. Soc. Australia (PESA), p. 3-25.
(Controversial/ unconventional tectonic model. 'most prospectors accept plate tectonics, although subduction is patently false, and the Earth is expanding at an accelerating rate')

Carlile, J.C. & A.H.G. Mitchell (1994)- Magmatic arcs and associated gold and copper mineralization in Indonesia. In: T.M. van Leeuwen et al. (eds.) Indonesian mineral deposits- discoveries of the past 25 years. J. Geochemical Exploration 50, p. 91-142.
(Gold mineralization in andesitic arcs, active for 3-20 My intervals from Cretaceous- Pliocene. Fifteen major arcs; known ore bodies in six mid-Tertiary- Pliocene arcs. Indonesia arcs total ~7,000 kms in length. Individual arcs or segments of arcs characterized by specific mineralization types reflecting arc basement related to earlier collisions and reversals in tectonic polarity and erosion level)

Caughey, C.A., D.C. Carter, J. Clure, M.J. Gresko, P. Lowry, R.K. Park & A. Wonders (eds.) (1996)- Proc. Int. Symposium on Sequence Stratigraphy in S.E. Asia, Jakarta 1995, Indon. Petroleum Assoc. (IPA), p. 1-487.

CCOP-IOC (1981)- Studies in East Asian tectonics and resources. ESCAP, CCOP Techn. Paper 7a, 2nd ed., p. 1-250.
(Report on ongoing geological research along nine SEATAR mega-regional transects)

CCOP (1991)- Total sedimentary isopach maps, offshore East Asia. CCOP Techn. Bull. 23, sheets 1-6, p. 1-116.
(Sediment isopach maps and summaries of SE and E Asia basins)

Chamot-Rooke, N. & X. Le Pichon (1999)- GPS determined eastward Sundaland motion with respect to Eurasia confirmed by earthquakes slip vectors at Sunda and Philippine trenches. Earth Planetary Sci. Letters 173, p. 439-455.
(GPS over SE Asia revealed Indochina, Sunda shelf and part of Indonesia behave as rigid 'Sundaland' platelet, which rotates clockwise relative to Eurasia. Sundaland E-ward velocity of ~10 mm/yr on S boundary increasing to 16-18 mm/yr on N boundary)

Chamot-Rooke, N., X. Le Pichon, C. Rangin, P. Huchon, M. Pubellier, C. Vigny & A. Walpersdorf (1999)- Sundaland motion in a global reference frame detected from GEODYSSEA GPS measurements: implications for relative motions at the boundaries with the Australo-Indian plates and the South China block. In: The Geodynamics of S and SE Asia (GEODYSSEA) Project, GeoForschungsZentrum, Potsdam, STR 98/14, p. 39-74.

Chapman, D.R. (1964)- On the unity and origin of the Australasian tektites. Geochimica Cosmochimica Acta 28, p. 841-888.
(Review of widespread Pleistocene tektites, distributed several 1000 km across SE Asia and Australia. Tektites remarkably similar in composition. Probably caused by major meteorite impact, probably on moon. Size and shape of tektites interpreted to reflect higher T portion of crater ejecta descended over SE Australia and lower T portions were strewn progressively over SW Australia-Indonesia and further North. 'Glass pebbles' locally known as billitonites, philippinites, australites, javanites, philippinites, etc.))

Charlton, T.R. (1986)- A plate tectonic model of the eastern Indonesia collision zone. Nature 319, p. 394-396.
(E Indonesia interpreted in terms of rel. simple three plate indentation model)

Charlton, T.R. (1991)- Postcollision extension in arc-continent collision zones, eastern Indonesia. Geology 19, p. 28-31.
(Postcollisional extension common in E Indonesia orogenic belts, starting <5 My after compressional deformation (Timor area, Gulf of Bone in Sulawesi, Wandamen -Wondiwoi Terrane of W Papua). Extension results from decoupling of subducting oceanic lithosphere from unsubductable continental lithosphere. Superimposition of extension is virtually unavoidable consequence of arc-continent collision)

Charlton, T.R. (2000)- Tertiary evolution of the Eastern Indonesia collision complex. J. Asian Earth Sci. 18, 5, p. 603-631.
(online at: https://pdfs.semanticscholar.org/7a4a/60abf67172f74729c322539e1e4c62ff2d78.pdf)

(Interpretations of last 35 My of tectonic evolution of E Indonesia, with plate reconstructions at 5 My intervals. Oldest reconstruction predates collisional deformation between N-moving Australian continent and E-W oriented, S- facing subduction zone extending from S margin of Eurasian continent E-wards. Beginning at ~30 Ma the Australian continental margin commenced collision with subduction zone along restored N margin, from Sulawesi in W to PNG in E. At ~24 Ma present-day pattern of oblique convergence between N margin of Australia and Philippine Sea Plate began. From ~18 Ma S-directed subduction commenced at Maramuni Arc in N New Guinea. Sorong Fault Zone strike-slip system active from ~12 -6 Ma)

Charlton, T.R. (2001)- Permo-Triassic evolution of Gondwanan eastern Indonesia, and the final Mesozoic separation of SE Asia from Australia. J. Asian Earth Sci. 19, 5, p. 595-617.
(E Indonesia continental fragments with Australian/Gondwanan affinities remarkably uniform Permo-Triassic tectonostratigraphy, ranging from granitoid belt in N, through continental platform, to intracontinental rift system in S. In rift system complementary upper and lower plate rifted margins recognised in N and S Banda Arcs. N granitoid belt initiated in mid-Carboniferous, intracontinental rift system began in latest Carboniferous- earliest Permian. Extension in N rift margin ceased in M Carnian, with decline in igneous activity in granitoid belt to North. Sibumasu Terrane originated on Gondwanaland margin, rifted away in E Permian. Gondwanan E Indonesia acted as continental connection between Sibumasu/Indochina and Australia in Permian- Triassic, permitting limited floral- faunal interchange between Gondwanaland and SE Asia until final separation in Late Triassic. M Carnian structural event in E Indonesia may be related to this separation)

Charlton, T.R. (2004)- The petroleum potential of inversion anticlines in the Banda Arc. American Assoc. Petrol. Geol. (AAPG) Bull. 88, 5, p. 565-585.
(Timor, Tanimbar and Seram perceived structural complexity may be overstated. Proposes inversions of Permian-Jurassic grabens as fundamental structural style)

Charlton, T.R. (2012)- Permian-Jurassic palaeogeography of the SE Banda Arc region. Berita Sedimentologi 24, p. 5-17.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-24-timor-and-arafura-sea.html)
(Paleogeographic maps of S and E Banda forearc (Savu to Kei islands, incl. Timor-Tanimbar) and adjacent parts of NW Australian continental margin for E Permian, M-L Permian, E-M Triassic, Late Triassic, and E, M and Late Jurassic. Three main rift phases (E Permian, Late Triassic and M-Late Jurassic) separated by quieter tectonic intervals with low facies diversity)

Charlton, T.R. (2013)- Sundaland Timor Paleogene rifting and regional palaeotectonics. Proc. 37th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA13-G-005, p. 1-11.
(Alternative plate reconstruction of Paleogene of Indonesia- NW Australia, suggesting E Sundaland and Gondwanaland/ NW Australia remained attached until final separation by rifting in Paleogene. Main driver for model is similarity of Paleogene rifting in both Sundaland and on Timor island, which is interpreted as part of the Australian continental margin)

Charlton, T.R. (2016)- Neogene plate tectonic evolution of the Banda Arc. Proc. 40th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA16-21-G, 16p.
(New East Indonesia plate reconstructions at 1 My intervals from 30 Ma- Present. Main differences between previous reconstructions are >30° CCW rotation of Bird's Head since ~6 Ma, and origin of backarc spreading in N and S Banda Basins by process of 'fixed slot' subduction geometry, not trench rollback. Four phases: (1) 30-18 Ma: Collision, then indentation of 'Greater Sula Spur' promontory into E continuation of Sunda Arc subduction system; (2) 18-12 Ma: Terranes N of Sorong Fault Zone move WSW relative to Australia, with motion of Pacific plate. (3) 12-6 Ma: Development of proto-Banda Arc by fixed-slot backarc spreading in N Banda Basin; (4) 6-0Ma: Collision around Banda Arc and rotation of Bird's Head)

Choi, D.R. (2005)- Deep earthquakes and deep-seated tectonic zones: a new interpretation of the Wadati-Benioff zone. In: F.C. Wezel (ed.) Earth dynamics beyond the plate paradigm, Bol. Soc. Geol. Italiana, Spec. Vol. 5, p. 79-118.
(Unorthodox non-plate-tectonic model for SE Asia tectonics, etc.)

Clements, B., P.M. Burgess, R. Hall & M.A. Cottam (2011)- Subsidence and uplift by slab-related mantle dynamics: a driving mechanism for the Late Cretaceous and Cenozoic evolution of continental SE Asia? In: R. Hall et al. (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geol. Soc., London, Spec. Publ. 355, p. 37-51.
(Extensive Cretaceous-Paleocene regional unconformity from Indochina to Java may be due to subduction-driven mantle processes. Cessation of subduction, descent of N- dipping slab into mantle, and consequent uplift and denudation of sediment-filled Late Jurassic- E Cretaceous dynamic topographic low help explain extent and timing of unconformity. Sediments started to accumulate above unconformity from M Eocene when subduction recommenced under Sundaland)

Clements, B. & R. Hall (2011)- A record of continental collision and regional sediment flux for the Cretaceous and Palaeogene core of SE Asia: implications for early Cenozoic palaeogeography. J. Geol. Soc. London 168, p. 1187-1200.
(online at: http://searg.rhul.ac.uk/pubs/clements_hall_2011%20Sundaland%20emergence.pdf)
(Detrital zircons from Eo-Oligocene sandstones of SW West Java derived from local volcanic sources and Sundaland. Populations with ages of 50-80 Ma (from two discrete volcanic arcs in Java and Sulawesi), 74-145 Ma (E-M Cretaceous granites of Schwaner Mts of SW Borneo), 202-298 Ma (Permian-Triassic Tin Belt granites), 480-653 Ma and 723-1290 Ma (Proterozoic SE Asia basement once part of Gondwana). M Eocene sediment derived mainly from Tin Belt, Late Eocene and younger Borneo source more important. Microcontinental collision at Java margin (~80 Ma) halted Cretaceous subduction and resulted in elevation of large parts of continental SE Asia)

Clermonte, J. (1982)- Eastern Indonesia peripheral to northern Australia: post-Mesozoic structures and orogeny. Bull. Centr. Rech. Expl.-Prod. Elf- Aquitaine 6, 2, p. 503-511.

Clure, J. (1998)- Complex Eastern Indonesia poses exploration challenges. Oil and Gas J. 96, 38, p. 91-95.

Cockroft, P. & K. Robinson (1988)- Chemistry of oilfield waters in South East Asia and their application to petroleum exploration. Proc. Offshore South East Asia Conf., Singapore 1988, SEAPEX Proc. 8, p. 221-238.
(Study of formation waters from 400 SE Asia wells. Majority fresh or brackish meteoric to connate waters)

Cole, J.M. & S. Crittenden (1997)- Early Tertiary basin formation and the development of lacustrine and quasi-lacustrine/marine source rocks on the Sunda Shelf of SE Asia. In: A.J. Fraser, S.J. Matthews & R.W. Murphy (eds.) Petroleum Geology of Southeast Asia, Geol. Soc., London, Spec. Publ. 126, p. 147-183.
(Tertiary basins of Sunda Shelf of SE Asia formed in ?Mid- Late Eocene and accumulated thick syn-rift lacustrine and low salinity organic-rich shales through Late Paleogene. Towards end Oligocene- E Miocene marine transgression throughout region. Syn-rift sediments most important hydrocarbon source rocks)

Collette, B.J. (1954)- On the gravity field of the Sunda region (West Indonesia). Geologie en Mijnbouw 16, 7, p. 271-300.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0Yi13a19UM20tQ0k/view)
(Interpretation of five gravity profiles through Sumatra and Java, based on broadly spaced gravity data from Vening Meinesz and BPM (see also Van Bemmelen 1954))

Collette, B.J. (1954)- On the gravity field of the Sunda region (West Indonesia)- a postscript. Geologie en Mijnbouw 16, p. 335-339.
(Response to Van Bemmelen(1954) critique of Collette (1954) paper)

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(draft online at: www.corbettgeology.com/corbett_and_leach_1997.pdf)
(On Indonesia- New Guinea- Philippines gold deposits. Includes discussions of Masupa Ria, Kalimantan, Wetar, etc.)

CoreLab/ PERTAMINA (1995)- The petroleum geology and economic assessment of the foreland basin areas of Eastern Indonesia. 5 vols. *(Unpublished)*

Courteney, S. (1995)- Sequence stratigraphy applied to the hydrocarbon productive basins of western Indonesia. In: G.H. Teh (ed.) Southeast Asian basins: oil and gas for the 21st century, Proc. AAPG-GSM Int. Conf. 1994, Bull. Geol. Soc. Malaysia 37, p. 363-394.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a27.pdf)
(>3000 exploratory wells drilled since 1870 in W Indonesia with 750 discoveries. By 1992 over 300 producing fields in 11 basins and 100 fields shut-in or abandoned. Published work is of regional nature. Lithostratigraphy mainly based on pre-1960's work, with terminology varying between companies. Biostratigraphy handicapped by lack of age diagnostic fossils in E Miocene and older sediments in most of Sumatra and Natuna. Java-Kalimantan older section more marine with age diagnostic fossils, but errors in age determination due to reworking. Propose correlative framework using sequence stratigraphy)

Courteney, S. (1996)- Western Indonesia-1: Sequence stratigraphy buoys W. Indonesia basins. Oil and Gas J. 94, May 20, p. 86-90.

Courteney, S. (1996)- Western Indonesia-2: Middle Eocene, older sequences in rifts key to potential in Western Indonesia. Oil and Gas J. 94, 22, May 27, p. 71-74.
(Hydrocarbons in Sumatra, Natuna, Sunda Basin, Lombok, Barito, NW Java, possibly also E Java basins all tied to M Eocene source rocks, mainly lacustrine, limited to Paleogene rifts)

Curray, J.R. (1989)- The Sunda Arc: a model for oblique plate convergence. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, p. 131-140.
(Sunda Arc extends from Himalayas to Banda Arc. Variations along arc function of direction and speed of convergence across subduction zone and sediment thickness on underthrusting plate. Highly oblique convergence may lead to lateral terrane transport and opening - closing of marginal basins like Andaman Sea)

Daly, M.C., M.A. Cooper, I. Wilson, D.G. Smith & B.G.D. Hooper (1991)- Cenozoic plate tectonics and basin evolution in Indonesia. Marine Petroleum Geol. 8, 1, p. 2-21.
(BP plate reconstruction. evolution. India collision and indentation led to major clockwise rotation of SE Asia. Sumatran basins opened due to back arc extension in Eocene. Closure of marginal ocean basin resulted in major contractional event in Late Oligocene. Gulf of Thailand basins and Andaman Sea opened in response to rotation of Indochina and oblique convergence at Sunda trench. Inversion S end of these basins and uplift in Borneo coincided with collision of Reed Bank Terrane with Borneo. Opening of Makassar Straits, Kutei, Tarakan and Barito basins in Eocene. Inversion of these basins result of collision of Australia and Australia-derived microplates in Late Miocene/Pliocene. Pliocene foldbelt and foreland basin formation in New Guinea result of oblique arc collision. Basin evolution of SE Asia not result of lateral extrusion in front of India indenter; main effect of collision is CW rotation of Indochina and extension along Sumatran active margin. Includes Oligocene arc polarity reversal in Sumatra, Timor is part of NW Australian margin, etc.)

Daly, M.C., B.G.D. Hooper & D.G. Smith (1987)- Tertiary plate tectonics and basin evolution in Indonesia. Proc. 16th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 399-428.
(Late 1980's BP plate reconstructions of Tertiary of SE Asia since 55 Ma. (see also Daly et al. 1991))

Daly, M.C., B.G.D. Hooper & D.G. Smith (1989)- Tertiary plate tectonics and basin evolution in Indonesia. In: B. Situmorang (ed.) Proc. 6th Regional Conf. Geology mineral hydrocarbon resources of Southeast Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 105-134.
(Same paper as Daly et al. (1987) above. With reconstructions since 70 Ma. N-ward motion of Australia started at ~50 Ma, at about same time as India-Eurasia collision and initiation of SE Asia Tertiary basins formation. Sumatra back-arc basins geometry of pull-apart basins between dextral strike-slip displacement. Banda-Celebs Sea (erroneously) viewed as trapped Mesozoic Indo-Australian oceanic crust?. Kutai- Tarakan- Barito-Makassar Straits basins viewed as Eocene back-arc extension along Pacific margin. Etc.)

Darian, J.P., A.L. Clark & Djumhani (1985)- A geologic and mineral resource assessment of Indonesia. East-West Resource Systems Institute, Honolulu, Working Paper 85-5, p. *(Unpublished?)*

Darman, H. & Minarwan (eds.) (2017)- Seismic atlas of Indonesian basins, version 17.01. FOSI/ INDOGEO Spec. Publication.
(see also online version at: http://geoseismic-seasia.blogspot.com/p/home.html)
(24 chapters of of Indonesian basins with short basin characterization and typical seismic lines)

Darman, H. & H. Sidi (eds.) (1999)- Tectonics and sedimentation of Indonesia. Proc. 1st Reg. Mtg. Indonesian Sedimentologists Forum, Bandung 1999, 99p.
(Symposium commemorating 50th anniversary Van Bemmelen (1949) book Geology of Indonesia)

Darman, H. & H. Sidi (eds.) (2000)- An outline of the geology of Indonesia. Indonesian Assoc. Geol. (IAGI), Jakarta, p. 1-192.
(The most recent, concise overview of Indonesian geology by collective of 25 Indonesian geologists. Much of book also as online chapters on Wikipedia)

Darman, H., R.A. Tampubolon & M. Arisandy (2018)- Geological features observations in Eastern Indonesia based on selected P3GL seismic data. Berita Sedimentologi 40, p. 55-64.
(online at: http://www.iagi.or.id/fosi/berita-sedimentologi-no-40.html)
(Examples of P3GL seismic lines over several East Indonesia basins around Waigeo, Misool, Seram, Aru, etc.))

Das, S., H. Schoffel & F. Gilbert (2000)- Mechanism of slab thickening near 670 km under Indonesia. Geophysical Research Letters 27, 6, p. 831-834.
(New data set of relocated earthquakes >400 km under Indonesia, developed by Schoffel and Das 1999. Slab thickens, shortens and weakens before penetrating below 670 km by shearing along conjugate fault planes on upper and lower portions of seismic zone)

De Bruyn, J.W. (1951)- Isogam maps of Caribbean Sea and surroundings and of Southeast Asia. Proc. Third World Petroleum Congress, The Hague 1951, Sect. 1, Brill, Leiden, p. 598-612.
(Two 1:10 million scale isogam maps based on published data and Royal Dutch Shell gravity surveys:(1) Caribbean Sea and surroundings; (2) SE Asia, including Indonesia, Philippines and New Guinea)

Decker, J., F. Ferdian, A. Morton, M. Fanning & L.T. White (2017)- New geochronology data from Eastern Indonesia- an aid to understanding sedimentary provenance in a frontier region. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-551-G, 18p.
(New zircon ages of igneous rocks in E Indonesia. Biotite-cordierite dacites (ambonites) from Ambon Pliocene (3-4 Ma), with inherited material from ~150-450 Ma. Banggai-Sula granites mainly Triassic age (226-244 Ma), with inherited zircons of ~1000, ~1400-1500, 1800 and 2200 Ma. Birds Head granites similar Triassic ages (~235-248 Ma; roots of Triassic volcanic arc system). Bacan diorite ~330 Ma. On Seram Triassic siliciclastic Kanikeh Fm sst same zircon age spectra as metasediments of Tanusa and Tehoru complexes. Sirga Fm quartz clastics in New Guinea Lst several units of different ages, derived from local uplifts in Eocene-Oligocene)

Deninger, K. (1914)- Einige Bemerkungen uber die Stratigraphie der Molukken und uber den Wert palaeontologischer Altersbestimmungen uberhaupt. Neues Jahrbuch Mineral. Geol. Palaont. 1910, 2, Abhandl., p. 1-15.
('Some remarks on the stratigraphy of the Moluccas and the value of paleontological age determinations'. Early discussion on significance of Mesozoic fossils of Buru and age of Buru Limestone)

Derksen, S.J. & J. McLean-Hodgson (1988)- Hydrocarbon potential and structural style of continental rifts: examples from East Africa and Southeast Asia. Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) 8, p. 47-62.
(Review of continental rift systems, with examples from Tertiary basins of Sundaland. In intracratonic setting sedimentation typically non-marinre during active graben formation; later regional subsidence may give rise to

marine transgression in rifts near cratonic margins. Best potential source rocks in non-marine rifts lacustrine shales, with TOC up to 20%. Volume of oil generated may be very large for depocentre of limited areal extent. Long distance migration from oil kitchens (20 km) not common in continental rift settings. Basin size typically 20-60 km wide and 70-300 km in length)

De Smet, M.E.M. (1989)- A geometrically consistent plate-tectonic model for Eastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Symposium Snellius II Expedition, Jakarta 1987, 1, Netherlands J. Sea Research 24, 2/3, p. 173-183.
(E Indonesia plate tectonic model for last 10 Myr assuming six rigid rotating plates: Banda Sea, Buru-Seram, Sula, W Pacific, Irian Jaya, Australia)

De Smet, M.E.M. (1999)- On the origin of the outer Banda Arc. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 81-82. *(Abstract only)*
(Order of structure belts/ rocks around Banda Sea is not a logical one in terms of plate tectonics. Outer Banda Arc not accretionary complex but compressed northern rim of Australian continental margin)

De Vos van Steenwijk, J.E. Baron (1946)- Plumb-line deflections and geoid in Eastern Indonesia as derived from gravity. Publ. Netherlands Geodetic Commission, Delft, p. 1-23.
(online at: https://www.ncgeo.nl/downloads/08DeVos.pdf)
(Calculations on gravity measurements by Vening Meinesz suggest irregularities in vertical gravity deflections and shape of geoid in E Indonesia. No discussion of geologic implications)

De Waele, B., P. Williams & G. Chan (2009)- Tectonic controls on the distribution of large copper and gold deposits in Southeast Asia to identify productive and non-productive structures. In: P.J. Williams et al. (eds.) Proc. 10th Biennual SGA Meeting, Smart science for exploration and mining, Townsville 2009, p. 933-935.
(Extended abstract) (On distribution of porphyry copper and epithermal gold deposits in SE Asia region and plate-tectonic controls)

Di Leo, J.F., J. Wookey, J.O. Hammond, J.M. Kendall, S. Kaneshima, H. Inoue, J.M. Yamashina & P. Harjadi (2012)- Mantle flow in regions of complex tectonics: insights from Indonesia. Geochem. Geophys. Geosystems 13, 12, p. 1-20.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2012GC004417/pdf)
(Seismic shear wave splitting indicates direction of mantle flow. Deformational features across Indonesian region: (1) block rotation history of Borneo reflected in coast-parallel fast directions; (2) mantle flow patterns in Sulawesi and Banda region: toroidal flow around Celebes Sea slab, oblique corner flow in Banda wedge, and sub-slab mantle flow around arcuate Banda slab; (3) evidence for deep, sub-520 km anisotropy at Java subduction zone; (4) Sumatran backarc trench-perpendicular fast orientations (mantle flow beneath overriding Eurasian plate?))

Durbaum, H.J. & K. Hinz (1984)- SEATAR-related geophysical studies by BGR in the Southwest Pacific. In: S.T. Watson (ed.) Trans. Third Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1982, American Assoc. Petrol. Geol. (AAPG), p. 129-133.
(Brief summary of results of German BGR 1977-1981 geophysical surveys in Sulu Sea, Makassar Straits, Arafura Sea, Wharton Basin and Coral Sea. No clear seismic evidence of seafloor spreading in Makassar Straits)

Earle, W. (1845)- On the physical structure and arrangement of the islands of the Indian Archipelago. J. Royal Geographic Soc. London 15, p. 358-365.
(online at: https://ia601700.us.archive.org/35/items/jstor-1797916/1797916.pdf)
(Early depiction of major structural elements elements of Indonesian archipelago: two continental blocks ('Great Asiatic Bank' in W and 'Great Australian Bank' in SE, surrounded by mountain and volcanic ranges)

Edelman, C.H. (1941)- Studien over de bodemkunde van Nederlandsch-Indie. Veenman, Wageningen, p. 1-416.

(online at: http://library.wur.nl/isric/fulltext/isricu_i00000621_001.pdf)
('Studies on the soil science of Netherlands Indies')

Elbert, J. (1911)- Die Sunda-Expedition des Vereins fur Geographie und Statistik zu Frankfurt am Main. Festschrift zur Feier des 75 jahrigen Bestehens des Vereins. Hermann Minjon, Frankfurt, vol. 1, XXV, p. 1-274.
('The Sunda-Expedition of the Frankfurt Geographic Society, etc'. Report of 1910 geographic expedition lead by Johannes Elbert to Bali, Lombok, Salayer, Tukang Besi, Muna, Buton, Rubia, Mengkoda, and parts of Java and Sumatra. Main purpose of expedition was to explore geographic relationship between Asia and Australia)

Elbert, J. (1912)- Die Sunda-Expedition des Vereins fur Geographie und Statistik zu Frankfurt am Main, vol. II. Hermann Minjon, Frankfurt, 15, p. 1-373.
(online at: http://books.google.com/books/download/Die_Sunda_Expedition_des_Vereins…; without maps)
(Volume 2 of 'The Sunda-Expedition of the Frankfurt Geographic Society, etc'.. Covers islands Kabaena, Sumbawa, Flores and Wetar and geographic summaries)

Elbert, J. (1913)- Geosynklinale und Rahmenfaltung, Zerrungsgebirge und Vulkanismus im australasiatischen Archipel. Zeitschrift Gesellschaft Erdkunde Berlin, 1913, p. 224-230.
(Brief, early discussion of tectonics of Indonesian archipelago)

England, P., R. Engdahl & W. Thatcher (2004)- Systematic variation in the depths of slabs beneath arc volcanoes. Geophysical J. Int. 156, 2, p. 377-408.
(Depth to top subducting slab below Java volcanoes ~100km. Worldwide ranges 65-130 km. Inverse correlation between depth and descent speed of subducting plate. No correlation with age of subducting ocean floor or thermal parameters of slab)

Ernst, W.G, S. Maruyama & S. Wallis (1997)- Buoyancy-driven, rapid exhumation of ultrahigh-pressure metamorphosed continental crust. Proc. National Academy Sciences USA 94, p. 9532-9537.
(online at: www.pnas.org/content/94/18/9532.full.pdf)
(Preservation of ultrahigh-pressure (UHP) minerals formed at depths of 90-125 km require unusual conditions. Our subduction model involves (1) underflow of continental crust embedded in cold, largely oceanic crust-capped lithosphere, (2) loss of leading portions of high-density oceanic lithosphere by slab break-off as increasing volumes of microcontinental material enter subduction zone, (3) buoyancy-driven return to mid-crustal levels of thin (2-15 km thick), low-density slice, (4) uplift, backfolding, normal faulting and exposure of UHP terrane. Intracratonal position of most UHP complexes reflects consumption of intervening ocean basin and introduction of sialic promontory into subduction zone. UHP metamorphic terranes consist chiefly of transformed continental crust (otherwise could not return to shallow depths). UHP paragneisses contain crustal diamonds. Banda Arc used as example)

ESCAP (1976)- Stratigraphic correlation between sedimentary basins in the ECAFE regions (Vols. 3 and 4) Proc. Spec. Regional Working Group, UN ECAFE Min. Res. Dev. Ser. 42, p. 1-263.

Escher, B.G. (1933)- On the relation between the volcanic activity in the Netherlands East Indies and the belt of negative gravity anomalies discovered by Vening Meinesz. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 36, 6, p. 677-685.
(online at: www.dwc.knaw.nl/DL/publications/PU00016465.pdf)
(Pre-plate tectonics paper exploring the apparent relationships between belts of active volcanoes, dipping zone of earthquakes and zone of negative gravity anomalies as recently identified by Vening Meinesz (early recognition of what became known in 1960's as Benioff-Wadati subduction zones; JTvG))

Escher, B.G. (1933)- Over het indirecte verband tusschen het vulkanisme in Ned.-Indie en de strook van negatieve anomalie van Vening Meinesz. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2), 50, 5, p. 727-740.

('On the indirect relationship between volcanism and Vening Meinesz' belt of negative gravity anomalies in E Indies'. (Escher supports Vening Meinesz' idea of significant horizontal movements of crust in the Indonesian region, but disputed by Van Bemmelen 1933 and many other papers)

Escher, B.G., I.M. van der Vlerk, J.H.F. Umbgrove & P.H. Kuenen (eds.) (1931)- De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geol. Mededelingen 5 ('Feestbundel Prof. Dr. K. Martin'), 1, p. 1-648.
('The paleontology and stratigraphy of Netherlands East Indies'. Commerative volume at 80st birthday of Prof. Dr. K. Martin. Voluminous book with 20 chapters summarizing 'state of knowledge' of paleontology and stratigraphy in Netherlands East Indies. With listings of species and fossil localities and stratigraphic tables. No illustrations of fossils)

Evans, C.D., C.P. Brett, J.W.C. James & R. Holmes (1995)- Shallow seismic reflection profiles from the waters of east and southeast Asia: an interpretation manual and atlas. British Geol. Survey (BGS) Techn. Report, WC/94/60, p. 1-94.
(Includes shallow sparker profiles in Indonesia, illustrating Neotectonics of Lampung Bay (faults cutting Pleistocene sediments), Neotectonics and diapyrism off N Madura (Neogene-Recent compressional anticline, a diapyric structure and possible gas chimneys) and Seabed erosion of Sunda Shelf W of Kalimantan (incl. 20m deep/ 600m wide buried lowstand channels)

Fairhead, J.D., I. Somerton & G. Gifford (2004)- A new global satellite gravity dataset for screening and evaluating offshore basins in S.E. Asia. In: R.A. Noble et al. (eds.) Proc. Deepwater and frontier exploration in Asia & Australia Symposium, Jakarta, Indon. Petroleum Assoc. (IPA), DFE04-PO-006, 7p.
(New GETECH processing method ERS-1 and GEOSAT satellite gravity recovers gravity anomalies with wavelengths down to 10 km)

Fainstein, R. (1998)- Deep water exploration off Southeast Asia. In: Offshore South East Asia Conf. (OSEA98), Singapore, SEAPEX, p. 272. *(Abstract only)*

Fitch, T.J. (1970)- Earthquake mechanisms and island arc tectonics in the Indonesian-Philippine region. Bull. Seismological Soc. America 60, 2, p. 565-591.
(One of first papers applying plate tectonics concepts to Indonesia. New focal mechanisms from shallow-focus earthquakes in Indonesian-Philippine region suggest dominant thrust and normal faulting rather than strike-slip faulting. Along Sunda and Philippine arcs most activity between ocean trench and line of active volcanoes. Mechanism solutions from earthquakes in this zone all thrust type (underthrusting beneath island arc))

Fitch, T.J. (1972)- Plate convergence, transcurrent faults and internal deformation adjacent to southeast Asia and western Pacific. J. Geophysical Research 77, p. 4432-4460.
(Earthquake data used to delineate convergence and transcurrent fault zones in Indonesia. Weber Deep erroneously interpreted in earlier Fitch papers as E continuation of Java Trench. See also comment by Audley Charles and Milsom 1974)

Fitch, T.J. & W. Hamilton (1974)- Reply to Audley Charles and Milsom comments on Fitch 1972 paper. J. Geophysical Research 79, 32, p. 4982-4985.
(Authors agree with Audley Charles and Milsom that Timor is product of collision of Banda island-arc system with continental shelf of Australia and New Guinea. Advancing arc has ramped up onto shelf, bulldozing shelf strata and incorporating them into imbricated and melanged material riding at front of arc. Timor trough, like Java trench with which it is continuous to W, is angle between gently dipping undersliding southern plate and wedge of shuffled material above it to N)

Fitch, T.J. & P. Molnar (1970)- Focal mechanisms along inclined earthquake zones in the Indonesia- Philippine region. J. Geophysical Research 75, p. 1431-1444.
(28 new focal mechanisms for intermediate and deep-focus earthquakes in Indonesia-Philippine region. At intermediate depths of Sunda and Philippine arcs descending slab of lithosphere is under extension. Deep-focus

mechanisms beneath Sunda arc suggest descending slab is under compression at great depth. In Banda Sea and N Celebes regions seismicity indicates possible contortions in underthrust slabs)

Fletcher, G.L. & R.A. Soeparjadi (1976)- Indonesia's Tertiary basins- the land of plenty. In: Proc. SEAPEX 1976, Offshore South East Asia Conf., Singapore, Paper 8, p. 1-54.
(Good overview of geology and hydrocarbon plays in Indonesian Tertiary basins)

Ford, R.J. (1988)- An empirical model for the Australasian tektite field. Australian J. Earth Sci. 35, p. 483-490.
(Australasian strewn-field contains radial sequence of tektite shapes ranging from rel. large unmodified impactite (Muong Nong type in S Laos, E Thailand), through dumb-bells and discs (thailandites, indochinites; 400-1000 km from impact site), and spheres (phillipinites, billitonites, javanites; 1000-3000 km from impact) to ablated button shapes (australites). Shapes of tektites from mainland SE Asia derived from uncongealed spinning glassy fragments passing through atmosphere. Sequence extends from suspected impact area in NE Cambodia to SE, to SE Australia and Tasmania)

Fortuin, A.R. & M.E.M. de Smet (1991)- Rates and magnitudes of Late Cenozoic vertical movements in the Indonesian Banda Arc and the distinction of eustatic effects. In: D.I.M. MacDonald (ed.) Sedimentation, tectonics and eustasy: sea level changes at active margins, Int. Assoc. Sedimentologists (IAS), Spec. Publ. 12, p. 79-89.

Fraser, A.J., S.J. Matthews & R.W.Murphy (eds.) (1997)- Petroleum geology of SE Asia. Geol. Soc., London, Spec. Publ. 126, 427p.
(Good collection of papers on SE Asia tectonics, basins and hydrocarbon plays)

Fugro-Robertson (2008)- Exploration opportunity screening: Eastern Indonesia-Papua New Guinea. Multi-client study, vol. I: Text; vol. II: Enclosures. *(Unpublished)*

Gage, M.S. & R.S. Wing (1980)- Southeast Asian basin-types versus oil opportunities. Proc. 9th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 124-147.
(Genetic classification of 63 SE Asia basins. Over 35 billion bbl oil found, another 35 remains to be found. Four of 11 recognized basin types contain 84% of all SE Asian oil: ocean margin, backarc, wrench and suture-related basins)

Gaina, C. & D. Muller (2007)- Cenozoic tectonic and depth/age evolution of the Indonesian gateway and associated back-arc basins. Earth-Science Reviews 83, p. 177-203.
(Reconstruction of tectonics and depth history of Indonesian seaway and associated SE Asian back-arc basins. All marginal seas N of Australia formed in back-arc setting, with Caroline (37-24 Ma) and Celebes Seas (48-35 Ma) opening N of N- dipping subduction zone, and Solomon Sea (42-33 Ma) S of S- dipping subduction. Several major tectonic events N of Australia at ~45 Ma, related to relocation of subduction zone NW of Australia under Philippine Sea plate due to collision and accretion of old Pacific plate material to N-subducting Australian plate. Negative anomalous depth of several back-arc basins is ~650-800m (range 300-1100m), accompanied by negative regional heatflow anomalies, suggesting mantle-driven dynamic topography. Tomography shows marginal basins with negative dynamic topography underlain by massive buried slab material, suggesting negative dynamic topography and heatflow anomalies due to basin formation above slab burial grounds)

Garwin, S.L. (1997)- The settings and styles of gold mineralisation in Southeast Asia. Bull. Geol. Soc. Malaysia 40, p. 77-111.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1997008.pdf)
(Majority of gold in SE Asia in porphyry (64%), low-sulfidation epithermal (17%), carbonate-base metal-gold (7%) and skarn (4%) deposits. 90% of these deposits (>95% of gold) associated with 14 middle to late Cenozoic magmatic arcs)

Garwin, S., R. Hall & Y. Watanabe (2005)- Tectonic setting, geology and gold and copper mineralization in Cenozoic magmatic arcs of Southeast Asia and the West Pacific. Economic Geology 100, p. 891-930.

(Gold and copper deposits in SE Asia and W Pacific largely in M-L Cenozoic (25-1 Ma) magmatic arcs. Twenty major arcs and several less extensive Cenozoic arcs form complex border to Sundaland core and N margin of Australian continent. Three major plate reorganizations at ~45, 25 and 5 Ma, characterized by collisional events that changed plate boundaries and motions. Most deposits developed during episodes of plate reorganization. Hydrothermal systems active for durations of <100,000 years)

Garwin, S., R. Hall & Y. Watanabe (2005)- Descriptions of the geologic settings and mineral deposit styles for major Cenozoic magmatic arcs of Southeast Asia and the West Pacific. Appendix I of Garwin, S., R. Hall & Y. Watanabe (2005), Economic Geology 100, p. 1-32.
(Descriptions of major Cenozoic volcanic arcs and associated mineral deposits from Japan through Philippines to Indonesia/ New Guinea)

Genrich, J.F., Y. Bock, R. McCaffrey, E. Calais, C.W. Stevens & C. Subarya (1996)- Accretion of the southern Banda Arc to the Australian plate margin determined by global positioning system measurements. Tectonics 15, p. 288-295.
(GPS measurements show Australian continent has accreted to Banda arc. Timor Trough now mostly inactive. Most of Australia- Eurasia convergence appears to occur as N-ward translation of Banda Arc, with shortening on Flores and Wetar thrusts)

Geological Survey of Indonesia (2008)- Gravity anomaly map of Indonesia, 1: 1,000,000.

Geological Survey of Indonesia (2009)- Peta Cekungan sedimen Indonesia/ Sedimentary basin map of Indonesia, based on gravity and geological data, 1:5000,000. Geol. Survey Indonesia, Bandung.
(online at: www.grdc.esdm.go.id)
(Map of Indonesia sedimentary basins, color-coded by age and labeled by basin type)

Geological Survey of Japan (2004)- Digital geologic map of East and Southeast Asia, 1: 2,000,000, 2nd ed. Digital Geoscience Map Series G-2, CD-ROM.

Ghose, R. & K. Oike (1988)- Characteristics of seismicity distribution along the Sunda Arc: some new observations. Bull. Disaster Prev. Res. Inst., Kyoto University, 38, 2, p. 29-48.
(online at: http://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/124954/1/b38p2n332p03.pdf)
(Depth distribution of earthquakes revealed zone of rare seismicity at intermediate depth in eastern Sunda arc)

Ghose, R., S. Yoshioka & K. Oike (1990)- Three-dimensional numerical simulation of the subduction dynamics in the Sunda arc region, Southeast Asia. Tectonophysics 181, p. 223-255.

Gingele, F.X., P. De Deckker & C.D. Hillenbrand (2001)- Clay mineral distribution in surface sediments between Indonesia and NW Australia- source and transport by ocean currents. Marine Geology 179, p. 135-146.

Granath, J.W., J. Christ, D. Fairhead & W. Dickson (2001)- Tertiary tectonic compilation in a GIS for Indonesia. Proc. 28th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 345-351.
(E Indonesia tectonic blocks in GIS format)

Green, R., J.S. Adkins, H.J. Harrington & M. Untung (1979)- Bouguer gravity anomaly map of Indonesia. University of New England, Armidale, Australia.

Green, R., J.S. Adkins, H.J. Harrington & M. Untung (1981)- Bouguer gravity map of Indonesia. Tectonophysics 71, p. 267-280.
(Summary of 1:5M map; map not included)

Grevemeyer, I. & V.M. Tiwari (2006)- Overriding plate controls spatial distribution of megathrust earthquakes in the Sunda-Andaman subduction zone. Earth Planetary Sci. Letters 251, p. 199-208.

(Thermal models and structural constraints derived from seismic and gravity data used to explain seismogenic behaviour in Sunda subduction zone. With respect to Java, oblique subduction of young oceanic crust shifts seismogenic coupling zone roughly 40 km trenchward offshore of N Sumatra and increases width of locked megathrust. Prominent positive gravity anomaly offshore Java caused by shallow mantle wedge underlying forearc basin. Serpentinized mantle wedge would limit width of coupling zone to 30–40 km, compared to N120 km off Sumatra. Sumatra remains therefore most vulnerable for future megathrust earthquakes, while shallow mantle wedge may limit violence of rupture off Java)

Gribi, E.A. (1973)- Tectonics and oil prospects of the Moluccas, Eastern Indonesia.In: B.K. Tan (ed.) Proc. Reg. Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geol. Soc. Malaysia 6, p. 11-16.
(online at: www.gsm.org.my/products/702001-101357-PDF.pdf)
(Early brief review of tectonics and oil prospectivity of E Indonesia)

Gribi, E.A. (1974)- Petroleum geology of the Moluccas, Eastern Indonesia. Proc. SEAPEX 1973 Conf., Singapore, 1, p. 23-30.
(Older, brief overview of potential hydrocarbon plays in E Indonesia)

Griffiths, J.R. & C.F. Burrett (1973)- Were South-East Asia and Indonesia parts of Gondwanaland? Nature Physical Sci. 245, p. 92-93.
(Brief comments on recent Ridd et al. (1971) and Audley Charles (1972) SE Asia plate reconstructions, in which India has been placed adjacent to W Australia and against Antarctica)

Grunau, H.R. (1965)- Radiolarian cherts and associated rocks in space and time. Eclogae Geol. Helvetiae 58, p. 157-206.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1965:58#3)
(Review of radiolarian cherts worldwide, incl. descriptions of ?Jurassic Danau Fm and Cretaceous Lupar Fm of Borneo, and similar rocks from Sumatra, Triassic and Cretaceous of Seram, Cretaceous of Timor, Jurassic-Cretaceous of E Sulawesi and Triassic of Malay Peninsula. Radiolarian cherts typical deep water 'geosynclinal' deposits (mainly Tethys eugeosyncline), typically intensely folded and associated with turbidites and ophiolites. As already concluded by Molengraaf (1909) these are remnants of former ocean basins)

Guntoro, A. (1995)- Tectonic evolution and crustal structure of the Central Indonesian region from geology, gravity and other geophysical data. Ph.D. Thesis University College London, p. 1-335. *(Unpublished)*
(Central Indonesian Region represents a transition between mainly Eurasian elements of W Indonesia and Pacific-Australian elements of E Indonesia. Bounded by two subduction zones: in W by pre-Tertiary subduction zone at SE Sundaland margin, to E by E Tertiary subduction zone (Selayar-Bonerate ridge). Variations in gravity demonstrate that continental crust in CIR was attenuated by subduction roll-back and then subjected to rifting by extensional forces. Extension in Makassar Strait, C Java Sea and E Java Sea in Eocene, forming marginal basins. Bone Bay opened due to collision between Banggai- Sula microcontinent and Sulawesi in M Miocene and was followed by CW rotation of Java, Sumbawa and Flores which caused opening of Flores Sea)

Guntoro, A. (1999)- A new propose of geological division in the Indonesian archipelago from tectonic evolution point of view. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 20-21. *(Extended Abstract)*
(Indonesian archipelago often divided into E and W parts, with boundary in Makassar Straits and Lombok Strait. New subdivision introducing C Indonesia Province, transition between Eurasian W Indonesia and Pacific- Australasian related elements of E Indonesia. Boundary between W and C Indonesian regions is Pre-Tertiary subduction zone at SE Eurasian margin. Boundary between C and E Indonesia at Paleogene subduction complex accreted to this margin, marked by Selayar-Bonerate Ridge, separating Flores and Banda Seas. C Indonesian region Cretaceous- Eocene site of complex subduction, fore arcs and magmatic arcs and subsequent opening of Makassar Strait)

Hafkenscheid, E. (2004)- Subduction of the Tethys oceans reconstructed from plate kinematics and mantle tomography. Ph.D. Thesis University of Utrecht, Geologica Ultraiectina 241, p. 1-191.
(online at: http://dspace.library.uu.nl/handle/1874/591)
(On large-scale history of subduction win Tethyan region from Mediterranean to Indonesian archipelago by combining plate tectonic reconstructions with independent seismic tomography results. Plate tectonic reconstructions of Tethyan region generally agree on first-order motions. E Tethyan region characterised by active subduction of various oceanic basins. Subduction zones modelsfrom regional tectonic reconstructions, converted into seismic velocity anomalies, which are compared to tomographic images of mantle structure)

Hafkenscheid, E., S.J.H. Buiter, M.J.R. Wortel, W. Spakman & H. Bijwaard (2001)- Modelling the seismic velocity structure beneath Indonesia: a comparison with tomography. Tectonophysics 333, p. 35-46.
(Generally good agreement between modeled tomography velocity structure and Rangin (1999) and Lee & Lawver (1995) plate reconstructions)

Hafkenscheid, E., M.J.R. Wortel, W. Spakman (2006)- Subduction history of the Tethyan region derived from seismic tomography and tectonic reconstructions. J. Geophysical Research 111, B08401, p. 1-26.
(Tomography, mainly on Western Tethys)

Haile, N.S. (1973)- The recognition of former subduction zones in Southeast Asia. In: D.H. Tarling & S.K. Runcorn (eds.) Implications of continental drift to the earth sciences, vol. 2, Academic Press, London, p. 885-892.
(Early paper on plate tectonics application in SE Asia, focused around W Borneo- Malay Peninsula)

Haile, N.S. (1976)- The regional implications of paleomagnetic research in Southeast Asia. SEAPEX Proc. 3, p. 39-44.
(Review of recent paleomagnetic work in SE Asia. Cretaceous rocks from W Kalimantan suggest this part of Borneo lay on equator, as Malay Peninsula with which it formed part of single plate, which subsequently rotated ~45°. Late Mesozoic radiolarian cherts from SW arm of Sulawesi also indicate low latitudes and CCW rotation of 35°. At W end of Seram late Cenozoic Kelang Fm rotated probably anticlockwise ~ 80°. Triassic rocks from S C Seram high magnetic inclination, indicating origin in higher latitudes (~26°) than today (see also Haile 1978, 1981))

Haile, N.S. (1978)- Progress report on paleomagnetic research in Southeast Asia. In: Wiryosujono & A. Sudrajat (eds.) Proc. 2nd Regional Conf. Geology and Mineral Resources of SE Asia (GEOSEA), Jakarta 1975, p. 33-36.

Haile, N.S. (1981)- Paleomagnetism of Southeast and East Asia. In: M.W. McElhinny & D.A.Valencio (eds.) Paleoreconstruction of the continents, American Geophys. Union (AGU), Geodyn. Ser. 2, p. 129-135.
(Summary of paleomagnetic results from Borneo, Sumatra (40° CW rotation since Mesozoic, 34° of which accomplished since Oligocene), Sulawesi, Sumatra, Sumba, Timor, Seram (Seram at 12°S in Late Triassic, rotated CCW 98° since then). Late Mesozoic of W Kalimantan and SW Sulawesi little change from present latitude, but 49° and 33° CCW rotation)

Haile, N.S. (1981)- Paleomagnetic evidence and paleotectonic history and paleogeography of eastern Indonesia. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Mtg., Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, p. 81-87.
(Seram 74° anticlockwise rotation since Late Miocene. Timor Permian Cribas Fm higher paleolatitude (34°) than Maubisse Fm (27°), but within margin of error. SW Sulawesi E Cretaceous radiolarian chert formed at ~3° and, with Kalimantan and Malay Peninsula, may have rotated 30-40° anticlockwise since Jurassic. Similar cherts from E arm Sulawesi formed at 42°S)

Haile, N.S. & J.C. Briden (1983)- Past and future paleomagnetic research and tectonic history of East and Southeast Asia. Proc. CCOP Workshop Paleomagnetic Research in E and SE Asia, Kuala Lumpur 1982, p. 25-46.

Hall, R. (1990)- Subduction-related ophiolite terrains: evidence from southeast Asia. In: J. Malpas et al. (eds.) Ophiolites: oceanic crustal analogues, Geol. Survey Cyprus, 1987, p. 449-460.

Hall, R. (1995)- Plate tectonic reconstructions of the Indonesian region. Proc. 24th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 1, p. 71-84.
(online at: http://searg.rhul.ac.uk/pubs/hall_1995_IPA%20reconstructions.pdf)
(Early version of R. Hall SE Asia plate reconstructions series, Eocene (50 Ma)- Recent)

Hall, R. (1996)- Reconstructing Cenozoic SE Asia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geol. Soc. London, Spec. Publ. 106, p. 153-184.
(Major review of plate reconstructions of SE Asia at 5 Ma intervals for past 50 Ma)

Hall, R. (1997)- Cenozoic plate tectonic reconstructions of SE Asia. In: A.J. Fraser et al. (eds.) Petroleum geology of Southeast Asia, Geol. Soc. London, Spec. Publ. 126, p. 11-23.

Hall, R. (1997)- Cenozoic tectonics of SE Asia and Australasia. In: J.V.C. Howes & R.A. Noble (eds.) Petroleum systems of SE Asia and Australasia, Indon. Petroleum Assoc. (IPA), Jakarta, p. 47-62.

Hall, R. (1998)- The plate tectonics of Cenozoic SE Asia and the distribution of land and sea. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publ., Leiden, p. 99-131.
(SE Asia plate reconstructions 50 Ma-Recent)

Hall, R. (1998)- Cenozoic tectonics of South East Asia: myths, models and methods; reconstructions, implications and speculations. In: Offshore South East Asia Conf. (OSEA98), Singapore, SEAPEX, p. 69-72.
(Brief review of issues in SE Asia tectonic models. Three important periods in regional development: ~45 Ma, 25 Ma and 5 Ma, when plate boundaries and motions changed, probably due to major collision events. Little indication that India was driving force of tectonics in SE Asia. Principal 'myths': myth of India indentor, myth of Australian micro-continent collision events and myth of convergence in New Guinea. No figures)

Hall, R. (2001)- Extension during Late Neogene collision in East Indonesia and New Guinea. J. Virtual Explorer 4, 13p.
(Important plate motion changes in SE Asia- W Pacific at ~45 Ma, 25 Ma and 5 Ma. Australia and SE Asia made contact at ~25 Ma, with collision-related deformation in Sulawesi and between Philippines-Halmahera- S Caroline Arc and New Guinea. Ophiolites obducted in SE Sulawesi in E Miocene)

Hall, R. (2001)- Cenozoic reconstructions of SE Asia and the SW Pacific: changing patterns of land and sea. In: I. Metcalfe et al. (eds.) Faunal and floral migrations and evolution in SE Asia-Australasia. Balkema, Lisse, p. 35-56.

Hall, R. (2002)- Cenozoic geological and plate tectonic evolution of SE Asia and the SW Pacific: computer-based reconstructions, model and animations. J. Asian Earth Sci. 20, 4, p. 353-431.
(Most comprehensive of R. Hall papers on SE Asia- SW Pacific plate reconstructions from Early Eocene (55 Ma)- Recent. See also updated/ expanded version of Hall (2012))

Hall, R. (2008)- Continental growth at the Indonesian margins of SE Asia. In: J.E. Spencer & S.R. Titley (eds.) Ores and orogenesis: Circum-Pacific tectonics, geologic evolution and ore deposits, Arizona Geol. Soc. Digest 22, p. 245-258.
(Indonesia continental core reassembled from blocks rifted from Gondwana, and surrounded by subduction zones for much of Mesozoic and Cenozoic. Weak and thin lithosphere beneath much of Sundaland, responsive

to changing forces at the plate boundaries. Continental growth mainly by arrival of continental fragments at subduction margins, with subordinate contributions from ophiolite and sediment accretion or arc magmatism)

Hall, R. (2009)- Southeast Asiaŝ changing palaeogeography. Blumea- biodiversity, evolution and biogeography of plants 54, 1-3, p. 148-161.
(online at: http://www.ingentaconnect.com/content/nhn/blumea/2009/00000054/f0030001/art00026#)
(SE Asia grew incrementally by addition of continental fragments, mainly rifted from Australia, and added to margins of Sundaland as result of subduction. Sundaland almost permanent land area from beginning of Mesozoic. Addition of continental fragments of SW Borneo and later East Java-W Sulawesi formed larger emergent land area by Late Cretaceous. Subduction resumed at Sundaland margin in Eocene, leading to widespread rifting within Sundaland and formation of Makassar Straits. Australia began to collide with SE Asia at ~25 Ma, effectively closing former deep ocean between two continents)

Hall, R. (2009)- Hydrocarbon basins in SE Asia: understanding why they are there. Petroleum Geoscience 15, 2, p. 131-146.
(online at: http://searg.rhul.ac.uk/pubs/hall_2009_SE%20Asia%20hydrocarbon%20basins.pdf)
(Almost all hydrocarbon basins in SE Asia began to form in Early Cenozoic and filled with Cenozoic sediments. Most are rifted basins formed by regional extension on continental crust. Weakness of Sundaland lithosphere, unusually responsive to changing forces at plate edges, meant that basins record complex tectonic history)

Hall, R. (2009)- The Eurasian SE Asian margin as a modern example of an accretionary orogen. In: P.A. Cawood & A. Kroner (eds.) Earth accretionary systems in space and time, Geol. Soc. London, Spec. Publ. 318, p. 351-372.
(Eurasian margin in SE Asia surrounds Sundaland continental core. Continental growth since Cretaceous in episodic way, related primarily to arrival of continental fragments at subduction margins, after which subduction resumed in new locations. There have been subordinate contributions from ophiolite accretion, and arc magmatism. Relatively small amounts of material accreted during subduction from downgoing plate. In E Indonesia the wide plate boundary zone includes continental fragments and several arcs. (This paper is first of several versions that show Early Cretaceous age of addition of SW Borneo Block to Sundaland and Late Cretaceous addition of E Java- W Sulawesi accreted block outboard of Meratus- C Java trend))

Hall, R. (2009)- Indonesia, Geology. In: R.G. Gillespie & D.A. Clague (eds.) The encyclopedia of islands, University of California Press, p. 454-460.

Hall, R. (2011)- Australia-SE Asia collision: plate tectonics and crustal flow. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of the Australia-Asia collision, Geol. Soc. London, Spec. Publ. 355, p. 75-109.
(Jurassic- Recent Indonesia tectonic reconstruction. Sundaland core of SE Asia is heterogeneous assemblage of Tethyan sutures and Gondwana fragments. Fragments that rifted from Australia in Jurassic collided with Sundaland in Cretaceous and terminated subduction. From 90-45 Ma Sundaland surrounded by inactive margins with localized strike-slip deformation, extension and subduction. At 45 Ma Australia began to move N and subduction resumed beneath Sundaland. At 23 Ma Sula Spur promontory collided with Sundaland margin. From 15 Ma subduction hinge rollback into Banda oceanic embayment, major extension, and later collision of Banda volcanic arc with S margin of embayment. Sundaland has weak thin lithosphere, highly responsive to plate boundary forces and hot weak deep crust flowed in response to tectonic and topographic forces and sedimentary loading. Gravity-driven movements of upper crust, unusually rapid vertical motions, exceptionally high rates of erosion and massive movements of sediment characterized region)

Hall, R. (2011)- SE Asian reconstructions, plate tectonics and crustal flow- any importance for hydrocarbon exploration? SEAPEX Expl. Conf., Singapore 2011, Presentation, 82p. *(Abstract and presentation)*
(Most of SE Asia not rigid plate or multiple rigid microplates bounded by lithospheric faults. Sundaland formed by collision of Sibumasu and E Malaya-Indochina in Triassic and other fragments rifted from Australia in late Jurassic- E Cretaceous were added in Cretaceous (now in Borneo, Java, Sulawesi))

Hall, R. (2012)- Late Jurassic-Cenozoic reconstructions of the Indonesian region and the Indian Ocean. Tectonophysics 570-571, p. 1-41.
(online at: www.sciencedirect.com/science/article/pii/S0040195112002533)
(Mesozoic- Cenozoic plate tectonic reconstructions. Luconia-Dangerous Ground continental block rifted from E Asia and was added to E Sundaland N of Borneo in Cretaceous. Banda (SW Borneo) and Argo (E Java- W Sulawesi) blocks separated from NW Australia and collided with SE Asia between 110- 90 Ma. At 90 Ma Woyla intra-oceanic arc collided with Sumatra margin. Subduction beneath Sundaland terminated at this time. Between 90-45 Ma Australia remained close to Antarctica and there was no significant subduction beneath Sumatra and Java, while Sundaland was surrounded by inactive margins with some strike-slip deformation and extension, except for subduction beneath Sumba- W Sulawesi between 63- 50 Ma. At 45 Ma Australia began to move N; subduction resumed beneath Indonesia and has continued to present. Cenozoic deformation influenced by deep structure of Australian fragments added to Sundaland core, shape of Australian margin formed during Jurassic rifting, and age of now-subducted ocean lithosphere)

Hall, R. (2012)- Sundaland and Wallacea: geology, plate tectonics and palaeogeography. In: D.J. Gower et al. (eds.) Biotic evolution and environmental change in Southeast Asia, The Systematics Association, Cambridge University Press, p. 32-78.
(online at: http://searg.rhul.ac.uk/pubs/hall_2012%20Sundaland%20&%20Wallacea.pdf)
(Plate tectonic and paleogeographic reconstructions since 80 Ma))

Hall, R. (2012)- East Indies. In: McGraw-Hill Encyclopedia of Science and Technology, 11th Ed., 5, p. 850-853.

Hall, R. (2013)- The palaeogeography of Sundaland and Wallacea since the Late Jurassic. J. Limnology 72, 2, p. 1-17.
(online at: www.jlimnol.it/index.php/jlimnol/article/view/685)
(Asia-Pacific boundary active continental margin until M Cretaceous. Subduction ceased around Sundaland in Late Cretaceous. From ~80 Ma most of Sundaland emergent and connected to Asia. One or more India-volcanic collisions in Eocene may have preceded India-Asia collision. During Late Cretaceous- E Cenozoic no significant subduction beneath Sumatra, Java and Borneo, until ~45 Ma when Australia began to move N; also time widespread rifting within Sundaland. During Paleogene E and N Borneo largely submerged. By E Miocene proto-South China Sea had been eliminated by subduction leading to emergence of land in C Borneo, Sabah and Palawan. Microplate or terrane concept of slicing fragments from New Guinea followed by multiple collisions in Wallacea implausible. Neogene subduction drove extension and fragmentation of Wallacea)

Hall, R. (2014)- Indonesian tectonics: subduction, extension, provenance and more. Proc. 38th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA14-G-360, 13p.
(Mainly summary of recent Royal Holloway group research. In E Indonesia subduction zones at different stages of development, from mature examples like Banda system that began to roll back from ~16 Ma, to younger systems such as N Sulawesi. Close relationship between subduction and extension, causing both dramatic elevation of land regions with exhumation of deep crust, and spectacular subsidence of basins. Many metamorphic rocks in Indonesia proved to be younger than previously suggested (SW Borneo, N and C Sulawesi, Seram). Triassic igneous and metamorphic rocks at W end of Schwaner region and N of Pontianak suggesting suture between Sundaland and SW Borneo further E than previously postulated)

Hall, R. (2014)- The origin of Sundaland. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 1-25.
(online at: http://searg.rhul.ac.uk/pubs/hall_2014%20Sundaland%20origin.pdf)
(Updated version of SE Asia plate tectonic reconstruction. Core of SE Asia was assembled from continental blocks that separated from Gondwana in Paleozoic and amalgamated with Asian blocks in Triassic. Some fragments rifted and separated from Asia and later re-amalgamated with western part of SE Asian continental core in Mesozoic. Fragments of Cathaysian/Asian continental crust form parts of N Borneo and offshore shelf N of Sarawak and E of Vietnam. Other continental blocks rifted from Australia in Jurassic (SW Borneo, E Java-W

Sulawesi, Sabah-NW Sulawesi, S Sulawesi-Sumba) and Woyla intra-oceanic arc of Sumatra and were added to Sundaland in Cretaceous. Subduction ceased around Sundaland in early Late Cretaceous)

Hall, R. (2017)- Southeast Asia: new views of the geology of the Malay Archipelago. Annual Review Earth Planetary Sci. 45, p. 331-358.
(Recent review of SE Asia tectonics. W part of SE Asia (Sundaland) heterogeneous and weak region, not underlain by thick, cold Precambrian lithosphere like typical cratons. In E subduction zones in different stages of development. Metamorphism in many parts of E Indonesia much younger than previously assumed. Close relationship between subduction rollback and extension, causing dramatic elevation of land, exhumation of deep crust and spectacular subsidence of basins)

Hall, R. (2018)- The subduction initiation stage of the Wilson cycle. In: R.W. Wilson et al. (eds.) Fifty years of the Wilson cycle concept in plate tectonics, Geol. Soc., London, Spec. Publ. 470, 23p.
(online at: http://sp.lyellcollection.org/content/specpubgsl/early/2018/02/12/SP470.3.full.pdf)
(Discussion of initiation of subduction process, with examples from East Indonesia)

Hall, R., J. Ali, C. Anderson & G.J. Nichols (1992)- Dispersion and accretion recorded in Eastern Indonesia. In: Proc. First Int. Symp. Gondwana dispersion and Asian accretion, China 1991, IGCP Project 321, p. 133-138.

Hall, R., B. Clements & H.R. Smyth (2009)- Sundaland: basement character, structure and plate tectonic development. Proc. 33rd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA09-G-134, 26p.
(New plate reconstructions going back to 150 Ma, showing Borneo terranes separating from Australian NW shelf in Late Jurassic and colliding with Asia in Early Cretaceous)

Hall, R. & J.D. Holloway (eds.) (1998)- Biogeography and geological evolution of SE Asia. Backhuys Publishers, Leiden, p. 1-410.
(Collection of papers from 1996 conference on SE Asia tectonics and biogeography. Some papers available online at: http://searg.rhul.ac.uk/publications/papers/pdf_publications/..)

Hall, R. & C.K. Morley (2004)- Sundaland Basins. In: P. Clift, P. Wang et al. (eds.) Continent-ocean interactions within the East Asian marginal seas, American Geophys. Union (AGU), Geophys. Monograph 149, p. 55-85.
(Continental core of Sundaland, comprising Sumatra, Java, Borneo, Thai-Malay Peninsula and Indochina, was assembled during Triassic Indosinian orogeny. Region includes extensive shallow seas, is not significantly elevated, but not stable for long time. Today surrounded by subduction and collision zones. Cenozoic deformation recorded in numerous deep sedimentary basins along highlands. Sediment fill mostly locally derived. Conventional basin modeling fails to predict heat flow, elevation, basin depths and subsidence history of Sundaland and overestimates stretching factors. Can be explained by interaction of hot upper mantle, weak lower crust, and lower crustal flow in response to changing forces at plate edges)

Hall, R. & I. Sevastjanova (2012)- Australian crust in Indonesia. Australian J. Earth Sci. 59, 6, p. 827-844.
(at: http://searg.rhul.ac.uk/pubs/hall_sevastjanova_2012%20Australian%20crust%20in%20Indonesia.pdf)
(Core of SE Asia assembled from continental blocks that separated from Gondwana in Paleozoic and collided with Asian blocks in Triassic. Fragments of Gondwana/Cathaysia blocks rifted and separated from Asia and later re-amalgamated with SE Asian continental core. Mesozoic rifting of fragments from Australian margins followed by Cretaceous collisions. Cenozoic collision of Australia with SE Asian margin added more continental crust. Fragments of Cathaysian/Asian continental crust form parts of NW Borneo and offshore and Australian blocks underlie much of Borneo. W Sulawesi and Java rifted from Australia in Jurassic and arrived in present positions in Cretaceous. Sula Spur collided with SE Asian margin in E Miocene, then fragmented by subduction-driven extension)

Hall, R. & H.R. Smyth (2008)- Cenozoic arc processes in Indonesia: identification of the key influences on the stratigraphic record in active volcanic arcs. In: A.E. Draut et al. (eds.) Formation and applications of the sedimentary record in arc collision zones. Geol. Soc. America (GSA), Spec. Paper 436, p. 27-54.

(Record of Cenozoic subduction volcanic activity at SE Asia margins. Stratigraphic record in Indonesian region reflects complex tectonic history, including collisions, changing plate boundaries, subduction polarity reversals, elimination of volcanic arcs and extension. Growth of region in episodic way by addition of ophiolites and continental slivers, and as result of arc magmatism)

Hall, R. & W. Spakman (2002)- Subducted slabs beneath the eastern Indonesia-Tonga region: insights from tomography. Earth Planetary Sci. Letters 201, 2, p. 321-336.
(Tomographic images of mantle structure N and NE of Australia show anomalously fast regions, interpreted in terms of current and former subduction systems)

Hall, R. & W. Spakman (2004)- Mantle structure and tectonic evolution of the region North and East of Australia. In: R.R. Hillis & R.D. Muller (eds.) Evolution and dynamics of the Australian Plate, Geol. Soc. America (GSA), Spec. Paper 372, p. 361-381.
(Tomographic images of mantle show high seismic-velocity anomalies, interpreted as subducted slabs. Several generally flat deeper anomalies not related to present subduction. Mainly discussion of potential Tertiary subducted slabs around NE Australia-New Guinea)

Hall, R. & W. Spakman (2005)- Mantle tomography and Southeast Asian tectonics. Indon. Petroleum Assoc. (IPA) Newsletter, July 2005, p. 31-36.
(online at: www.ipa.or.id/download/news/IPA_Newsletter_07_2005_9.pdf)

Hall, R. & W. Spakman (2015)- Mantle structure and tectonic history of SE Asia. Tectonophysics 658, p. 14-45.
(Review of tomography and tectonic interpretations of Greater Indonesian region)

Hall, R. & M.E.J. Wilson (2000)- Neogene sutures in Eastern Indonesia. J. Asian Earth Sci. 18, p. 781-808.
(online at: https://pdfs.semanticscholar.org/5a2c/ccdb9a1eb5e74a2e0fa57d5381f9fd8dc1ee.pdf)
(Five suture zones: (1) Molucca (Pliocene- Recent Halmahera and Sangihe arcs collision), (2) Sorong, (3) Sulawesi (Late Oligocene- E Miocene West and East Sulawesi continent-continent collision), (4) Banda (Banda Volcanic arc and N Australia collision) and (5) Borneo sutures (E-M Miocene S China- N Borneo collision), each with relatively short history)

Hamilton, W. (1970)- Tectonic map of the Indonesian region, a progress report. U.S. Geol. Survey, Denver, Open File Report 70-150, p. 1-29.
(Preliminary report on Hamilton's major work, superseded by Hamilton (1978))

Hamilton, W. (1973)- Tectonics of the Indonesian Region. In: B.K. Tan (ed.) Proc. Reg. Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geol. Soc. Malaysia 6, p. 3-10.
(online at: www.gsm.org.my/products/702001-101358-PDF.pdf)
(Early paper on plate tectonic interpretation of Indonesia, following assumptions that subduction zones are characterized by ophiolite, melange, wildflysch and blueschist, that intermediate and silicic calc-alkaline igneous rocks form above Benioff zones, and that truncations of orogenic belts indicate rifting. SE Asia and 'Sundaland' are aggregates of small continental fragments. Philippines, Sulawesi and Halmahera consist of Mesozoic? and Cenozoic island-arc subduction and magmatic complexes and lack old continental foundations)

Hamilton, W. (1974)- Map of the sedimentary basins of the Indonesian region. U.S. Geol. Survey (USGS) Map I-875-B, 1:5,000,000.
(online at: http://pubs.usgs.gov/imap/0875b/plate-1.pdf)

Hamilton, W. (1974)- Earthquake map of the Indonesian region. U.S. Geol. Survey (USGS), Misc. Inv. Ser., Map I-875-C, 1:5,000,000.
(online at: http://pubs.usgs.gov/imap/0875c/plate-1.pdf)
(Map showing earthquake epicenters and depth recorded from 1961-197, with interpreted subduction zones)

Hamilton, W. (1976)- Subduction in the Indonesian region. Proc. 5th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 3-23.
(Early plate tectonic interpretation of Indonesia)

Hamilton, W. (1977)- Subduction in the Indonesian region. In: M.Talwani & W.C. Pitman (eds.) Island arcs, deep sea trenches and back-arc basins, American Geophys. Union (AGU), Maurice Ewing Ser. 1, p. 15-31.
(As above. Outer-arc ridge between Java-Sumatra and active Java Trench is top of wedge of melange and imbricated rocks whose steep-moderate dips are sharply disharmonic to gently dipping, subducting oceanic plate beneath. Wedge has grown by scraping off of oceanic sediments and basement against and beneath its toe, and by internal imbrication. Outer-arc basin behind ridge originated from Paleogene continental shelf-and-slope assemblage whose seaward side was raised by melange stuffed beneath it by Neogene subduction. Banda Arc now colliding with Australian-New Guinea continent. Sumba is microcontinental fragment derived from Java Shelf. Philippines are product of aggregation of segments of various island arcs)

Hamilton, W.B. (1978)- Tectonic map of the Indonesian region. U.S. Geol. Survey (USGS) Map I-875-D, 1:5,000,000.
(online at: http://pubs.usgs.gov/imap/0875d/plate-1.pdf)
(Reprinted with corrections in 1981. Mainly surface geology with structural elements, not 'terrane map')

Hamilton, W. (1979)- Tectonics of the Indonesian Region. U.S. Geol. Survey (USGS) Prof. Paper 1078, p. 1-345.
(online at: http://pubs.usgs.gov/pp/1078/report.pdf)
(Classic, first comprehensive overview and synthesis of Indonesia tectonics in plate tectonics context, both land and offshore areas. An aging, but unrivaled masterpiece on geology of Indonesia, still with abundant good information, observations and insights. First to interpret Banda Sea as Neogene extensional basin. Etc.)

Hamilton, W. (1988)- Plate tectonics and island arcs. Geol. Soc. America (GSA) Bull. 100, p. 1503-1527.
(Discussion of plate tectonics, with many examples from Indonesia. Modern Sunda volcanic arc system, involving subduction of Indian Ocean lithosphere beneath Sumatra and Java, was inaugurated only in middle Tertiary time. Variations in composition of lavas along Sunda-Banda Arc reflects continental crust in Sumatra segment, transitional crust in Java and mature oceanic island arc developing from Bali to Sumbawa Much of the older geology records subduction in quite different tectonic systems. Sumatra may have rifted from what is now medial New Guinea in M Jurassic time. Java constructed entirely by post-Jurassic subduction-related processes of magmatism and tectonic accretion. Etc.)

Hamilton, W. (1989)- Convergent-plate tectonics viewed from the Indonesian region. In: A.M.C. Sengor (ed.) Tectonic evolution of the Tethyan region, Kluwer Academic Publishers, Dordrecht, p. 655-698.
(Thorough review of plate tectonic elements and processes in zones of convergence, with examples from Indonesian region. Overriding plates generally rel. undeformed. Subduction systems along continental margins typically inaugurated by reversal of subduction after island arc or continental mass collision. High-pressure metamorphism only where crustal material subducted beneath overriding plate. Sunda Arc system changes along strike from continental in Sumatra to transitional in Java to mature oceanic island arc in Bali and Lombok. Sumatra Block separated from New Guinea in mid-Jurassic. Etc.)

Hamilton, W. (1989)- Convergent plate tectonics viewed from the Indonesian region. Geologi Indonesia 12, 1 (IAGI Katili special volume), p. 35-88.
(Same paper as above)

Hamilton, W.B. (1995)- Subduction systems and magmatism. In: J.L. Smellie (ed.) Volcanism associated with extension at consuming plate margins, Geol. Soc., London, Spec. Publ. 81, p. 3-28.
(Subducting oceanic plates not fixed. Hinges roll back into oceanic plates and slabs sink more steeply than inclinations of Benioff zones. Common regime in overriding plates is extensional; leading edges crumpled only in collisions. Shear coupling between subducting slabs and overriding plates limited to shallow depths. Subduction cannot occur simultaneously beneath opposite sides of rigid plate. Inception ages, collisions,

polarity reversals and stage of petrological evolution vary greatly along continuous arc systems. Back-arc basins form by spreading behind migrating arcs. Etc.)

Hammond, J.O.S., J. Wookey, S. Kaneshima, H. Inoue, T. Yamashina & P. Harjadi (2010)- Systematic variation in anisotropy beneath the mantle wedge in the Java-Sumatra subduction system from shear-wave splitting. Physics Earth Planetary Interiors 178, p. 189-201.
(manuscript online at: https://hal.archives-ouvertes.fr/hal-00610669/document)
(Splitting in S-waves from local earthquakes across Sumatra- Java subduction zone between 75- 300km depth show trench parallel fast directions. Deeper local events shows larger time-lags and significant variation in fast direction. Significant differences between slab subducted beneath Sumatra and older slab beneath Java)

Hantoro, W.S. (1992)- Etude des terrasses recifales quaternaries soulevees entre le detroit de la Sonde et l'Ie de Timor, Indonesie: mouvements verticaux de la croute terrestre et variations du niveau de la mer. Ph.D Thesis Universite Aix Marseille II, Vol. 1, p. 1-761 and Vol. 2, p. 1-225. *(Unpublished)*
('Study of Quaternary reef terraces between Sunda Strait and Timor island: vertical crustal movements and sea level variations')

Hantoro, W.S., R. Lafont, S. Bieda, L. Handayani, E. Sebowo & S. Hadiwisastra (1996)- Holocene to Recent vertical movement in Indonesia; study on emerged coral reef. In: Proc. IGCP Symp. Geology SE Asia and adjacent areas, Hanoi 1995, J. Geology, B, 7-8, p. 93-113.
(Many Indonesian islands have emerged Holocene coral reef platforms in sheltered beach setting, refecting mid-Holocene sea level highstand, ~3m above present-day sea level. Vertical movements identified by coral reefs 'outside stepping' (uplift; Banda Arc from Alor to E) or 'inside stepping' (subsidence, e.g. S Sunda Strait))

Harahap, B.H., S. Bachri, Baharuddin, N. Suwarna, H. Panggabean & T.O. Simanjuntak (2003)- Stratigraphic lexicon of Indonesia. Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 29, p. 1-729.
(Comprehensive overview of names, definitions, ages and type localities of 1856 formations used on Geological Survey maps in Indonesia. Many formation names used through Indonesia by other authors, oil industry, etc., not included)

Harder, S.H., R.J. McCabe & M.F.J. Flower (1992)- A single mechanism for Cenozoic extension in and around Indonesia. In: Symposium on Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Warta Geologi 18, 6, p. 263. *(Abstract only)*
(https://gsmpubl.wordpress.com/2014/09/17/warta-geologi-1985-1994/)
(SE Asia has large Tertiary basins and major strike-slip faults on and around Indochina Peninsula. Basins in different orientations and intersected by strike-slip faults. Creation mechanism is collision of Indian plate with Eurasian continent and rotating stress regime created by collision. Rotating stress mechanism began in Eocene when Indian plate first contacted Eurasian continent forming Ranong fault in Thailand. As stress field increased and propagated N-ward from collision zone stress field in Indochina rotated. No figures)

Harder, S.H., S.J. Mauri & S. Marshall-Arrazola (1993)- Gravity modelling of extensional basins in Southeast Asia. In: G.H. Teh (ed.) Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geol. Soc. Malaysia 33, p. 153-162.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1992006.pdf)
(Comparison of free-air gravity with sediment thickness of SE Asia sedimentary basins shows no correlation due to differences in crustal structure under basins in extensional vs. convergent regimes. Thickened crust in convergent regimes creates negative anomalies)

Hardjawidjaksana, K. & H. Prasetyo (1994)- Review of the development of the eastern Indonesia triple junction. Proc. 30th Sess. Comm. Co-ord Joint Prospecting Mineral Res Asian Offshore Areas (CCOP), Bangkok, 2, p. 109-136.
(Review of structure and tectonic development of Eastern Indonesia. Complex area for which at least seven different tectonic frameworks have been proposed)

Harris, R. (2003)- Geodynamic patterns of ophiolites and marginal basins in the Indonesian and New Guinea regions. In: Y. Dilek & P.T. Robinson (eds.) Ophiolites in Earth history, Geol. Soc. London, Spec. Publ. 218, p. 481-505.
(online at: http://geology.byu.edu/home/sites/default/files/2003-geodynamic-patterns-opt.pdf)
(Ophiolites in E Indonesia- New Guinea region suggest strong correlation with marginal basin development and closure. Most ophiolite slabs represent fragments of oceanic lithosphere with subduction zone component as indicated by petrochemistry and occurrence of boninite)

Harris, R. & J. Major (2017)- Waves of destruction in the East Indies: the Wichmann catalogue of earthquakes and tsunami in the Indonesian region from 1538 to 1877. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Spec. Publ. 441, p. 9-46. *(Two volumes of Arthur Wichmann's Die Erdbeben des Indischen Archipels (1918 and 1922) document 61 regional earthquakes and 36 tsunamis between 1538- 1877 in Indonesian region)*

Harrold, T.W.D., R.E. Swarbrick & N. Goulty (1999)- Pore pressure estimation from mudrock porosities in Tertiary basins, Southeast Asia. American Assoc. Petrol Geol. (AAPG) Bulletin 83, 7, p. 1057-1067.

Hartono, H.M.S. (1970)- Steps towards standardization of stratigraphic classification in Indonesia. In: Stratigraphic correlation between sedimentary basins of the ECAFE region (Second Volume), United Nations ECAFE Min. Res. Dev. Series 36, p. 130-134.
(Many lithostratigraphic names used in Indonesia may be considered as informal because they do not meet requirements of stratigraphic rules or were never formally proposed. Recommends Geological Survey must take immediate steps towards standardization of stratigraphic nomenclature in Indonesia (!))

Hartono, H.M.S. (co-ord.), C.S. Hutchison, S. Tjokrosapoetro & B. Dwiyanto (1991)- Studies in East Asian tectonics and resources (SEATAR). Crustal transect IV: Banda Sea. CCOP, Bangkok, p. 1-30.
(Overview of SEATAR Banda Sea crustal Transect. Banda Sea underlain by oceanic crust, believed to be Cretaceous age. Oldest Banda Sea volcanics 12 Ma)

Hartono, H.M.S. & S. Tjokrosapoetro (1984)- Preliminary account and reconstruction of Indonesian terranes. Proc. 13th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 185-226.
(Indonesian Archipelago 13 terranes (accretionary terranes excluded). Proto-Kalimantan and Sumatra basement include island arcs and amalgamated in Late Triassic along Bentong-Raub suture to form Sunda Platform. In Paleogene SW Sulawesi rifted from E Kalimantan to collide with oceanic crust to E. In Tertiary W Sulawesi magmatic arc came into existence. Sulawesi Ophiolite from oceanic crust pushed W by Banggai-Sula terrane and blocked by Tertiary W Sulawesi arc. Sumba, Buton, Seram and Timor terranes result of rift-drift from NW Australia in Jurassic. Banggai-Sula, Bacan and Buru terranes formed by Sorong Fault slicing off NW Irian Jaya and moving W. NW Australia /Irian Jaya passive margin, moving N behind front of oceanic crust. It collided with N Irian Jaya island Arc in Oligocene, after which polarity of subduction changed to S)

Hartono, H.M.S. & S. Tjokrosapoetro (1986)- Geological evolution of the Indonesia Archipelago. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Reg. Congress Geol. Min. Energy Res. SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geol. Soc. Malaysia 20, p. 97-136.
(online at: http://www.gsm.org.my/products/702001-101431-PDF.pdf)
(Same paper as Hartono & Tjokrosapoetro (1984) above)

Hatherton, T. & W.R. Dickinson (1969)- The relationship between andesitic volcanism and seismicity in Indonesia, the Lesser Antilles and other island arcs. J. Geophysical Research 74, p. 5301-5310.
(On relationship between K-content of andesitc volcanoes and depth of seismic (Benioff) zone below volcano. One of first 'new plate tectonics' concepts applied to Indonesia)

Hayes, D.E. (ed.) (1978)- A geophysical atlas of the East and Southeast Asian seas. Geol. Soc. America (GSA), MC-25, p.

Hayes, D.E. (ed.) (1980)- The tectonic and geologic evolution of Southeast Asian seas and islands. American Geophys. Union (AGU) Geophys.Monogr. 23, p. 1-326.
(Reports of SEATAR project work)

Hayes, D.E. (ed.) (1983)- The tectonic and geologic evolution of Southeast Asian seas and islands- Part 2. American Geophys. Union (AGU) Geophys. Monogr. 27, p. 1-396.
(Reports of SEATAR project work -part 2)

Hayes, D.E. (1984)- Marginal seas of Southeast Asia- their geophysical characteristics and structure. In: Origin and history of marginal and inland seas. Proc. 27th Int. Geological Congress, Moscow 1984, VNU Science Press, 23, p. 123-154.
(Identification and dating of magnetic lineaments in oceanic crust below marginal basins if SE Asia relatively difficult and associated with uncertainties, because small basin sizes and limited age range of ocean floor makes it difficult to identify a unique sequential pattern. Also, basins formed in low geomagnetic latitudes, where magnetic lineations tend to have low amplitudes and more difficult to map)

Hedervari, P. & Z. Papp (1981)- Seismicity maps of the Indonesian region. Tectonophysics 76, p. 131-148.
(Rel. dated, general earthquakes distribution maps)

Hehuwat, F. (1976)- Isotopic age determinations in Indonesia: the state of the art. In: Proc.CCOP Seminar on isotopic dating, Bangkok 1975, United Nations ESCAP CCOP Techn. Bull. 3, p. 135-157.

Hehuwat, F.H.A. (1986)- An overview of some Indonesian melange complexes- a contribution to the geology of melange. Mem. Geol. Soc. China 7, p. 283-300.

Hehuwat, F.H.A. (1987)- Suatu tinjauan deformasi Kuarter di Indonesia. In: Geologi Kuarter dan lingkungan hidup, Geol. Res. Development Center, Bandung, Spec. Publ. 7, p. 42-50.
('A review of Quaternary deformation in Indonesia'. In: Quaternary Geology and environment)

Heine, C., L. Quevedo, H. McKay & R.D. Muller (2012)- Plate tectonic consequences of competing models for the origin and history of the Banda Sea subducted oceanic lithosphere. Eastern Australian Basins Symposium (EABS) IV, Brisbane 2012, Petroleum Expl. Soc. Australia (PESA), p. 25-34.
(online at: https://arxiv.org/ftp/arxiv/papers/1210/1210.4958.pdf)
(Banda Arc subduction system shows bowl-shaped geometry in seismic tomographic images, indicating Argo-Tanimbar-Seram oceanic lithosphere still attached to surrounding continental margins of N Australia and Bird's Head microcontinent. Slab unfolding model suggests Birds Head block rotated 20-35° CW relative to present-day position. Birds Head block is autochthonous to W Irian Jaya, with W margin continental transform margin during rifting and opening of ATS ocean)

Heliani, L.S., Y. Fukuda & S. Takemoto (2004)- Simulation of the Indonesian land gravity data using a digital terrain model data. Earth Planets and Space 56, 1, TERRAPUB, Tokyo, p. 15-24.
(online at: https://www.terrapub.co.jp/journals/EPS/pdf/2004/5601/56010015.pdf)
(Indonesian gravity field neither accurately nor comprehensively determined, especially land data. This study proposes solution to data unavailability by means of simulation technique)

Hetzel, W.H. & W.C.B. Koolhoven (1932)- Eenige aanteekeningen over de stratigrafie en de tektoniek van het Oost-lndische Tertiair. De Mijningenieur 13, p. 179-191.
('Some notes on the stratigraphy and tectonics of the East Indies Tertiary')

Hinschberger, F. (2000)- Geodynamique de l'Est Indonesien dans son cadre cinematique. Doct. Thesis Universite de Bretagne Occidentale, Brest, p.
('Geodynamics of eastern Indonesia in its kinematic framework'. Basins and microcontinents of Banda Sea region. N Banda Sea backarc basin opened between 12.5 and 7 Ma, S Banda Sea between 6.5- 3.5 Ma. Banda

Ridges that separate N and S Banda basins derived from single continental block. Weber Basin deepest basin in region (7400m); migrated to NE in Late Pliocene- Pleistocene. With plate reconstructions of last 15 Myrs)

Hinschberger, F., J.A. Malod, J.P. Rehault, M. Villeneuve, J.Y. Royer & S. Burhanuddin (2005)- Late Cenozoic geodynamic evolution of eastern Indonesia. Tectonophysics 404, p. 91-118.
(E Indonesia M Miocene- Recent plate reconstruction model, involving Late Miocene- Pliocene opening of Banda Sea)

Hirayama, J. (ed.) (1991)- Total sedimentary isopach maps offshore East Asia, with basin descriptions. CCOP Techn. Bull. 23, p. 1-114.

Hochstein, M.P. & J. Moore (eds.) (2008)- Indonesian geothermal prospects and developments. Geothermics. 37, 3, p. 217-365.

Hoffman, N. (2002)- Australian geology in Indonesia: new frontiers and new discoveries. Proc. 28th Ann. Conv. Indon. Petroleum Assoc., p. 289-300.
(Discussion of Australian Mesozoic geology in Timor sea area. Reservoirs predominantly Jurassic, with recent Laminaria and Sunrise/Troubadour gas discoveries close to Indonesian border. First significant Indonesian Mesozoic hydrocarbon discovery in Tangguh, Irian Jaya, with Jurassic source-reservoir similar to Plover Fm)

Hoffmann-Rothe, J. (1994)- Indonesien/Indonesia. In: H. Kulke (ed.) Regional petroleum geology of the world, I, Borntraeger, Berlin, p. 747-794.
(Literature review of oil-gas basins and fields of Indonesia; in German)

Holcombe, C.J. (1977)- Earthquake foci distribution in the Sunda Arc and the rotation of the back-arc area. Tectonophysics 43, 3-4, p. 169-180.
(Earthquake foci suggest Indian Ocean plate underthrust only 200 km under C Sumatra, but >600 km under Java Sea. May be due to oblique India-Eurasia convergence caused by rotation of Sunda backarc area relative to Eurasia. Backarc rotation also explains pattern of Cenozoic volcanicity in Sumatra, and nature of Andaman Basin, which may be rhombochasm forming behind locally divergent plate margin)

Holcombe, C.J. (1977)- How rigid are lithospheric plates? Folds and shear rotation in Southeast Asia. J. Geol. Soc., London, 134, 3, p. 325-342.
(Significant fault movement during Tertiary in continental SE Asia, part of Eurasia plate. Three separate but linked rotations (1) Indochina subplates wrench rotation, (2) Sunda shear rotation, and (3) rotation of Malay Peninsula and Sunda Platform by movements along Ranong and Semangko faults. Pre-Oligocene map reconstruction of SE Asia offers explanations for patterns of Quaternary faulting and Tertiary sedimentation)

Holloway, J.D. & R. Hall (1998)- SE Asian geology and biogeography: an introduction. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, Leiden, p. 1-23.

Honda H. & H. Nagura (2000)- A note on the Tertiary history of Indo-Australian plate-movements and the West Indonesian Tertiary stratigraphy. J. Japanese Assoc. Petroleum Technologists 65, 3, p. 270-277.
(in Japanese) (online at: www.journalarchive.jst.go.jp/...)
(Two geohistorical phases in Indo-Australian plate movements: (1) slow N-ward movement of Australian plate until latest Eocene with sudden acceleration around earliest Oligocene; (2) Late Oligocene acceleration and plateau of high movement rate until late Early Miocene, and early M Miocene acceleration. These plate movements well recorded in Indonesian Tertiary and Quaternary systems)

Huang, C.Y., P.B. Yuan, W.L. Ching, T.K. Wang & P.C. Chung (2000)- Geodynamic processes of Taiwan arc-continent collision and comparisons with analogs in Timor, Papua New Guinea, Urals and Corsica. Tectonophysics 325, p. 1-21.
(Comparison of arc-continent collisions in four areas: Timor (initial stage), Taiwan, Papua New Guinea and Corsica (most advanced stages))

Hutabarat, S. (1993)- Khuluk dan ploa umum diagenesis mineral-mineral lempung dalam batuan waduk klastik di Cekungan-Cekungan Indonesia-Barat. Proc. 22nd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 2, p. 1015-1027.
(On diagenesis of clay minerals in clastic reservoirs in West Indonesian basins)

Hutasoit, L.M. & A.M. Ramdhan (2014)- Similarities of overpressuring in some of Western Indonesiaôs sedimentary basins. Proc. 38th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA14-G-356, 10p.
(In W Indonesia basins top of overpressure is mostly located near top of sag phase deposits. Top of 'hard' overpressure in several areas at onset of smectite-illite transformation.Almost all carbonate build-ups located below sag deposits low overpressure to normal hydrostatic pressure regime)

Hutchison, C.S. (1973)- Tectonic evolution of Sundaland; a Phanerozoic synthesis. In: B.K. Tan (ed.) Proc. Reg. Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geol. Soc. Malaysia 6, p. 61-86.
(online at: www.gsm.org.my/products/702001-101353-PDF.pdf)
(Early paper on tectonic evolution of Sundaland in terms of plate tectonic model. Interesting paleo-tectonic maps of Sundaland since Permian. Infers W Borneo has been part of 'continental' Sundaland since Permian, with opposing subduction systems under Sundaland for Permian- Cretaceous)

Hutchison, C.S. (1975)- Ophiolite in Southeast Asia. Geol. Soc. America (GSA) Bull. 86, p. 797-806.
(Twenty belts of ultramafic assemblages identified in SE Asia (not including E Indonesia), but fewer than half can be classified as ophiolite. Complete ophiolite sequences only in NE Borneo and Philippine Islands; others incomplete or dismembered)

Hutchison, C.S. (1978)- Southeast Asian tin granitoids of contrasted tectonic setting. J. Physics of the Earth, Tokyo, 26, Suppl., p. 221-232.
(online at: https://www.jstage.jst.go.jp/article/jpe1952/26/Supplement/26_Supplement_S221/_pdf)
(Three major tin granitoid belts in SE Asia: (1) West (Phuket to Tenasserim). Tin associated with Cretaceous adamellite, granite and pegmatite; (2) Main Range (Bangka to S Thailand). Tin associated with Late Carboniferous and Late Triassic granite; (3) East (Billiton to Pahang-Trengganu). Tin-tungsten associated with Permian- M Triassic adamellite-granite)

Hutchison, C.S. (1980)- Southeast Asia. In: A.E. Nairn & F.G. Stehli (eds.) The Indian Ocean, The ocean basins and margins 6, Plenum Press, New York, p. 451-512.
(Substantial overview of Precambrian- Recent rocks distribution from Burma to W Indonesia)

Hutchison, C.S. (1983)- Multiple Mesozoic Sn-W-Sb granitoids of Southeast Asia. In: J.A. Roddick (ed.) Circum-Pacific Plutonic terranes, Geol. Soc. America (GSA) Mem. 159, p. 35-60.
(SE Asia complex array of granitoid belts, mainly of Mesozoic age. Eastern belt (E Malay Peninsula, Bangka and Billiton(?) is Andean-type Permian- Late Triassic calc-alkaline volcano-plutonic arc (peak ages ~222 Ma and 250 Ma). Probably underlain by continental basement (isoclinally folded Carbo-Permian metasediments, Permian limestones, Namurian shales and sandstones). Abundant volcanic and plutonic activity through Permian and ending active history in Late Triassic with subaerial ignimbritic flows. Narrow central belt of Permian-Triassic granitoids and metamorphic complexes with local Cretaceous granites. Main Range E margin is serpentine-marked Bentong-Raub suture zone. Main Range batholith Sn-granite mainly Late Triassic (~230 and 200 Ma), but with E Permian (~280 Ma) granites; grades W-ward through Penang, Langkawi, and peninsular Thailand to higher level plutons. N Thailand granites mainly Triassic. Main Range and N Thai granites no volcanic associations, and tied to collision and closure of central marginal basin in Late Triassic. Triassic granites and some Cretaceous granites associated with tin, tungsten and antimony deposits, thought to be recycled from continental infrastructure of Sundaland)

Hutchison, C.S. (1984)- Is there a satisfactory classification for Southeast Asian Tertiary basins. Proc. 5th South East Asia Offshore Conf., SE Asia Petroleum Expl. Soc. (SEAPEX), Singapore 1984, p. 6.64- 6.76.

(SE Asia Tertiary basins classification complicated by presence of microcontinents, originating from Jurassic-E Miocene rifting from S China and N Australian continental margins)

Hutchison, C.S. (1986)- Tertiary basins of S.E. Asia- their disparate tectonic origins and eustatic stratigraphical similarities. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geol. Soc. Malaysia 19, p. 109-122.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986010.pdf)
(72 Tertiary basins in greater SE Asia developed by extensional tectonics, combined with wrench control. With exception of marginal seas sedimentation kept pace with subsidence. Basin unconformities, transgressions, regressions good correspondence to global sea level changes, but may be artifact of overdependence on SE Asian basins for compilation of eustatic curves)

Hutchison, C.S. (1986)- Formation of marginal seas in Southeast Asia by rifting of the Chinese and Australian continental margins and implications for the Borneo region. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geol. Soc. Malaysia 20, p. 201-220.
(With exception of Okinawa and Ayu Troughs, all SE Asia marginal seas formed by processes other than backarc rifting. Andaman Sea is leaky transform system. W Philippine Sea, Banda Sea, Celebes Sea and Sulu Sea basins all remnants of former oceans now trapped behind younger arc-trench systems. S China Sea formed by post-Early Cretaceous rifting of continental margin of SE China. (NB: all these basins are probably younger than assumed by Hutchison, so some conclusions here are not valid; JTvG)

Hutchison, C.S. (1987)- Displaced terranes of the southwest Pacific. In: Z. Ben Avraham (ed.) The evolution of the Pacific Ocean margins, Oxford Monographs Geol. Geophysics 8, Oxford University Press, p. 161-175.

Hutchison, C.S. (1987)- Tectonic settings of tin-tungsten granites in Southeast Asia. In: C.S. Hutchison (ed.) Proc. IGCP Project 220 Conference, Techn. Bull. 6, Ipoh, Malaysia, SEATRAD Centre, p. 1-24.

Hutchison, C.S. (1989)- The Palaeo-Tethyan realm and Indosinian orogenic system of Southeast Asia. In: A.M.C. Sengor (ed.) Tectonic evolution of the Tethyan Regions, Kluwer, Dordrecht, p. 585-644.
(Extensive review with Paleozoic- Mesozoic reconstructions of SE Asia. SE Asia is composite of Precambrian continental blocks, overlain in part by Paleozoic carbonate-dominated platforms. Major suture in Song Ma, N Vietnam, welded Indosinia and S China blocks in E Carboniferous to form E Asian Continent together with N China Block. E Asian Continent in equatorial latitudes in Permian and developed Cathaysian Gigantopteris flora. W Borneo Basement is detached part of E Asian continent. Paleo-Tethys suture/ Indosinian orogenic system extends S from Dien Bien Phu through Thailand into Peninsular Malaysia (Raub-Bentong). All terrains E of suture have Cathaysian affinities, those to W are of Permian Gondwana affinity. Suture closed in Late Triassic. Most Jurassic-Cretaceous age formations are of continental molasse facies. S Sumatra contains Cathaysian flora at Djambi, but N Sumatra strong affinities with Gondwana part of Malay Peninsula. An Indosinian suture may separate the two, but not well defined)

Hutchison, C.S. (1989)- Geological evolution of South-East Asia. Oxford Monographs Geol. Geophysics 13, p. 1-368.
(Comprehensive textbook of SE Asia geology. See also 2007 second edition)

Hutchison, C.S. (1992)- The Eocene unconformity on Southeast and East Sundaland. Bull. Geol. Soc. Malaysia 32, p. 69-88.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992016.pdf)
(Early Paleogene Sundaland landmass extended as far SE as W Sulawesi. Cratonic nature of Malay Peninsula and China did not extend into or beyond Borneo region of Sundaland, where pre-Eocene outcrops are dominated by Cretaceous rocks. Deep water sediments, melange and ophiolite terrains characteristic of non-cratonic SE peninsula of Sundaland. India collided with Eurasia by 45 Ma (anomaly 1), spreading ceased at NW Wharton Basin, etc.. Push of India resulted in clockwise rotation of Sundaland. Regional event causing major Eocene unconformity on and around Sundaland)

Hutchison, C.S. (1994)- Gondwana and Cathaysian blocks, Palaeotethys sutures and Cenozoic tectonics in South-East Asia. Int. J. Earth Sciences (Geol. Rundschau) 83, 2, p. 388-405.
(Triassic 'Indosinian Orogeny' suturing of Gondwanan and Cathaysian blocks closed Paleotethys Ocean. W Malaysia Sinoburmalaya block has Carboniferous-Permian mudstones with glacial dropstones and is traced into Sumatra. Cathaysian E Malaya block Late Permian Gigantopteris flora and fusulinid limestones with andesitic volcanism, similar to W Sumatra block (also E Permian volcanism, fusulinid limestones and early Cathaysian Jambi flora). S-SSE trending central Peninsular Malaysian Triassic orogenic belt swings SE from Singapore to Bangka, then E to Billiton. Paleo-Tethys suture (Bentong-Raub Line) unlikely to continue S along Paleogene Bengkalis Graben, which transects NW-SE orogenic fabric of Sumatra. Oroclinal bending of Indosinian Orogen, from NW-SE in Sumatra to Peninsular Malaysia, attributed to Paleocene collision of India and indentation into Eurasia. Bending accomplished by clockwise rotation and right-lateral shear parallel to orogenic grain. Mesozoic Paleotethyan sutures transformed into Paleocene and younger shear zones)

Hutchison, C.S. (1996)- South-East Asian oil, gas, coal and mineral deposits. Oxford Monographs Geol. Geophysics 36, p. 1-265.
(Major review of SE Asia oil-gas, coal and mineral deposits)

Hutchison, C.S. (1998)- The quest for an understanding of Southeast Asian Cenozoic tectonics and the importance of pre Tertiary structures. In: Offshore South East Asia Conference 1998 (OSEA98), Singapore, SE Asia Petroleum Expl. Soc. (SEAPEX), p. 73-74. *(Extended Abstract)*
(N-wards movement of Indian-Australian plate caused (1) cratonic India to begin its collision with continental Eurasia in Eocene, causing CW bending of pre-Tertiary fabric of Sundaland, predominantly by right-lateral wrench faulting, and (2) cratonic Australia to begin collision with Indonesian island arcs in Miocene, causing CCW bending, accomplished by left-lateral faulting (e.g. Sorong Fault). Fracture systems displaced micro-continents SE-ward from Sundaland and W-ward from Australia- New Guinea. N-S Indosinian fabric of Peninsular Malaysia bends East through Bangka and Billiton. Triassic correlation of NW Borneo possibly with E Vietnam. Most but not all Cenozoic structures follow pre-Tertiary fabric. Etc.)

Hutchison, C.S. (2007)- Geological evolution of South-East Asia, 2nd edition. Geol. Soc. Malaysia, Kuala Lumpur, p. 1-433.
(Second edition of 1989 textbook of SE Asia geology; with relatively minor revisions)

Hutchison, C.S. (2014)- Tectonic evolution of Southeast Asia. Bull. Geol. Soc. Malaysia 60 (C.S. Hutchison Memorial Issue), p. 1-18.
(online at: https://gsmpubl.files.wordpress.com/2015/04/bgsm2014001.pdf)
(Brief review of SE Asia tectonic history, mainly of Sundaland area (Malay Peninsula- Thailand- Sumatra). Key events Late Triassic collision Sibumasu and E Malaya/Indochina after Permian E-ward subduction beneath E Malaya and development of E-M Triassic Semanggol-Mutus basin foredeep. M-Late Triassic tin granites of Peninsular Malaysia continue in curve through Bangka and Billiton. Late Cretaceous- Paleocene belts of migmatites and plutons. Oroclinal bending of N Sundaland from E-W fabric in Billiton- Borneo to N-S in N Peninsular Malaysia, resulted from indentation of India. Much of Borneo rotated ~50° CCW between 30-10 Ma and ~40° between 80-30 Ma, caused by collision between Australian plate and Indonesian arc at Timor)

Hutchison, C.S. (ed.) R. Sukamto, H.Z. Abidin, T.C., Amin, M.S. Andi et al. (1991)- Studies in East Asian tectonics and resources (SEATAR) Crustal transect VII: Jawa- Kalimantan- Sarawak- South China Sea. CCOP, Bangkok, CCOP/TP 26, p. 1-66.

Hutchison, C.S. (ed.), R. Sukamto, A.P. Madrid et al. (1995)- Studies in East Asian tectonics and resources (SEATAR), Crustal transect VIII, South China- Sulu- Sulawesi- Maluku- Philippine Seas. Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 20, p. 1-45.
(Review of geology and geophysics along regional transect including Sulu Sea, Celebes Sea, Molucca Sea, Philippine Sea)

Irsyam, M., M. Asrurifak, Hendriyawan, B. Budiono, Wahyu Triyoso & A. Firmanti (2010)- Development of spectral hazard maps for a proposed revision of the Indonesian seismic building code. Geomechanics and Geoengineering 5, 1, p. 35-47.
(Good review of present-day earthquake distribution and tectonic belts of Indonesian region)

Irsyam, M., Hendriyawan, M. Asrurifak, M. Ridwan, F. Aldiamar, I.W. Sengara, S. Widiyantoro et al. (2013)- Past earthquakes in Indonesia and new seismic hazard maps for earthquake design of buildings and infrastructures. In: J. Chu et al. (eds.) Geotechnical predictions and practice in dealing with geohazards, Chapter 3, Springer, p. 33-46.

Isacks, B., J. Oliver & L.R. Sykes (1968)- Seismology and the new global tectonics. J. Geophysical Research 73, 18, p. 5855-5899.

Jablonski, D. (2007)- Insights into S.E. Asian plate reconstructions as guided by the 2005-2006 regional seismic surveys, Central-Eastern Indonesia. Presentation SEAPEX Conf., Singapore 2007, Abstract, 2p.
(>10 km of Eocene- Recent sediment in Gorontalo Basin which is underlain by pre-rift section of sedimentary origin. Pre-break-up section evidence of older collision that may be related to collision of Mangkalihat-NW Sulawesi microplate with NE Sulawesi. Integration of this observation with onshore geology of SE Sulawesi indicates likely Late Cretaceous collision. Eocene- Miocene in Gorontalo Basin mainly extensional tectonics with late compression estimated approximately at 5.5 Ma)

Jacques, J.M. (2007)- Geotectonic map of SE Asia- basins and hydrocarbon occurrences. Presentation SEAPEX 2007 Conf., Singapore, p.
(GIS-based digital tectonic elements map and sediment thickness map of SE Asia. Map available from SEAPEX)

Jacobson, R.S., G.G. Shor, R.M. Kieckhefer & G.M. Purdy (1981)- Seismic refraction and reflection studies in the Timor-Tanimbar-Aru Trough system and Australian continental shelf. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Mtg., Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, p. 153-169.
(Timor-Aru Trough is not deeper than 3.6 km and is extension of Java Trench. Underlain by continental crust. Data strongly support trough is surface trace of subduction zone)

Jarrard, R.D. & S. Sasajima (1980)- Paleomagnetic synthesis for Southeast Asia: constraints on plate motions. In: D.E. Hayes (ed.) The tectonic and geologic evolution of Southeast Asian seas and islands-1, American Geophys. Union (AGU) Geophys. Monograph Ser. 23, p. 293-316.
(Compilation of paleomagnetic data Japan, Philippines, Indonesia. E Mesozoic Sumatra was 10-20°S of present latitude; in Late Mesozoic drifted N with 30° CW rotation, reaching present position by E Tertiary)

Kadarusman, A. (2001)- Geodynamic aspects of Indonesian region: a petrological approach. Ph.D. Thesis, Tokyo Institute of Technology, p. 1-456. *(Unpublished)*
(Study of metamorphic rocks Timor-Tanimbar (Banda Outer Arc) region)

Kadarusman, A. (2002)- Plume tectonics and Eastern Indonesia. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, p.

Kadarusman, A. (2009)- Ultramafic rock occurrences in Eastern Indonesia and their geologic setting. Proc. 38th Ann. Conv. Indon. Assoc. Geol. (IAGI), Semarang, PIT IAGI2009-188, 7p.
(Ultramafic rocks exposed in E Indonesia in E Kalimantan, Sulawesi, Halmahera, Banda Arc and Papua. Mostly derived from peridotite layer of ophiolite rocks; but some believed to be from orogenic peridotite. Source of nickel laterite, nickel sulfide deposits, also cobalt, chromite, platinum group metals and lateritic iron ores. E Sulawesi Ophiolite (Cretaceous-Oligocene age) occupies large part of E Sulawesi, resulted from Late Oligocene accretion to Sundaland margin and Late Miocene collision with Banggai Sula microcontinent)

Kadarusman, A. (2012)- The geology and tectonic of the Banda Arc, Eastern Indonesia:update from the outer arc. In: N.I. Basuki (ed.) Proc. Banda and Eastern Sunda arcs, Indonesian Soc. Econ. Geol. (MGEI) Ann. Conv. 2012, Malang, p. 193-200.

Kadarusman, A., Y. Kaneko, T. Ohta & S. Maruyama (2003)- The geology and tectonic of the Banda Arc, Eastern Indonesia. Proc. 32nd Ann. Conv. Indon. Assoc. Geol. (IAGI) and 28th HAGI Ann. Conv., Jakarta, 17p.
(Non-magmatic S Banda arc from Timor to Tanimbar exposes one of youngest high P/T metamorphic belts in world. Deformation and metamorphic grade increase towards center of 1 km thick crystalline belt. High P/T metamorphic rocks extruded as thin sheet into space between overlying ophiolites and underlying continental shelf sediments ('wedge extrusion model'). Quaternary uplift, marked by elevation of recent reefs, ~1260 m in Timor, decreasing toward Tanimbar in E. Exhumation of high P/T metamorphic belt started in W Timor in Late Miocene time and migrated east. Quaternary rapid uplift to rebound of subducting Australian continental crust beneath Timor after break-off the oceanic slab fringing continental crust)

Katili, J.A. (1970)- Large transcurrent faults in Southeast Asia with special reference of Indonesia. Geol. Rundschau 59, p. 581-600.
(Large transcurrent faults present in Taiwan-Philippine region and in the area between Sulawesi and E New Guinea, with mainly sinistral movement. Sumatran fault-system 1650km long, dextral lateral displacement. On Java smaller transcurrent faults with strike more or less parallel to island. Palu-Kuro Fault ('Fossa Sarasina') in C Sulawesi also sinistral transcurrent fault. Dextral transcurrent fault of ~100 km length in Gorontalo area, N Sulawesi. In W Papua E-W trending Sorong Fault. Two groups of transcurrent faults in SE Asia: NW-SE and E-W. Indonesian Archipelago is being protruded SE-ward, with major block movements along Philippine and Sumatran fault-zones)

Katili, J.A. (1971)- A review of the geotectonic theories and tectonic maps of Indonesia. Earth-Science Reviews 7, p. 142-165. *(also in Bull. Nat. Inst. Geology and Mining, Bandung (1970) 3, 2, p. 57-69)*
(Good review of tectonic syntheses proposed for Indonesia from 1920's to 1970. Long ago Indonesian Archipelago recognized as place of intersection of two of large mountain systems and zone between Asian and Australian continents. They also realized that Indonesian island arcs represent early stage formation of mountain belt with systematic relationship of active tectonic and magmatic features to deep submarine trenches. New concept of plate tectonics best basis to explain features of Indonesian island arcs)

Katili, J.A. (1972)- Plate tectonics of Indonesia with special reference to the Sundaland area. Proc. First Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 57-61.
(One of the early papers re-interpreting Indonesia tectonics in a plate tectonic context)

Katili, J.A. (1973)- Plate tectonics and its significance for the search of mineral deposits in western Indonesia. United Nations ECAFE CCOP Tech. Bull. 7, p. 23-37.
(Early interpretation of Indonesia on basis of plate tectonic theory. W Indonesia magmatic arcs and subduction zones in Permian, Triassic-Jurassic, Cretaceous and Tertiary- Recent, tied to styles and ages of mineralization provinces. Late Jurassic Malayan Orogen contains tin, gold and bauxite. Cretaceous and Miocene arcs contain epithermal gold-silver ores, etc.)

Katili, J.A. (1973)- On fitting certain geological and geophysical features of the Indonesian island arc to the new global tectonics. In: P.J. Coleman (ed.) The Western Pacific: island arcs, marginal seas, geochemistry. University of Western Australia Press, p. 287-305.
(One of the early Katili papers re-interpreting Indonesia tectonics in a plate tectonic context)

Katili, J.A. (1973)- Geochronology of West Indonesia and its implication on plate tectonics. Tectonophysics 26. p. 195-212.
(New radiometric ages of igneous rocks allow recognition of paleo-subduction zones of Permian, Triassic-Jurassic, Cretaceous, Miocene and Pliocene-Recent age. Radiometric ages of granites of Lassi Massif, Padang Highlands, C Sumatra (~112 Ma), Lampong Massif, S Sumatra (~88 Ma), offshore N Java (100 Ma), Sunda

Shelf Anambas (~86 Ma), Tembelan (~85 Ma) and Natuna (~75Ma). Permian granites near Jambi, S Sumatra ~276-298 Ma. With map of volcanic arcs of Paleozoic- Tertiary ages)

Katili, J.A. (1974)- Geological environment of the Indonesian mineral deposits; a plate tectonic approach. Geological Survey of Indonesia, Publ. Teknik, Ser. Geol. Ekonomi 7, p. 225-236.
(Tertiary mineralization more significant in Sulawesi, Halmahera, Irian Jaya than Sumatra, Java, Lesser Sunda islands, possibly because Pacific Plate richer in metals than Indian Ocean)

Katili, J.A. (1975)- Geological environment of the Indonesian mineral deposits; a plate tectonic approach. CCOP Techn. Bull. 9, p.
(Same paper as above)

Katili, J.A. (1975)- Volcanism and plate tectonics in the Indonesian island arcs. Tectonophysics 26, p. 165-188.
(Reconstruction of outward migration of Indonesian volcanic arcs from Permian-Cretaceous- Oligo-Miocene to Recent)

Katili, J.A. (1980)- Geotectonics of Indonesia- a modern view. Directorate General of Mines, p. 1-271.
(Reprint collection of Katili papers 1962-1978)

Katili, J.A. (1981)- Contradicting views on the plate tectonics of Indonesia and their bearing on heat flow research. Bull. Geol. Res. Dev. Centre (GRDC), Bandung, 5, p. 21-29.

Katili, J.A. (1984)- Evolution of plate tectonic concepts and implication for the exploration of hydrocarbon and mineral deposits in Southeast Asia. Pangea, CIFEG, Paris 3, p. 5-18.

Katili, J.A. (1985)- Advancement of geoscience in the Indonesian region. Indon. Assoc. Geol. (IAGI), Bandung, 248p.
(Reprint collection of Katili papers 1963-1985)

Katili, J.A. (1986). On understanding the geological environment of the Southeast Asian mineral and hydrocarbon deposits in relation to the progressive development of plate tectonic concepts. Mem. Geol. Soc. China (Taiwan) 7, p. 45-68.

Katili, J.A. (1989)- Review of past and present geotectonic concepts of Eastern Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, 2-3, p. 103-129.
(History of geotectonic concepts since early 1900's)

Katili, J.A. (1989)- Evolution of the Southeast Asian arc complex. Geologi Indonesia (J. Indon. Ass. Geol., IAGI) 12, 1 (Katili Special Volume), p. 113-143.

Katili, J.A. (1991)- Tectonic evolution of Eastern Indonesia and its bearing on the occurrence of hydrocarbons. Marine Petroleum Geol. 8, 1, p. 70-83.
(New Guinea first collided with Sepik island arc at ~30 Ma. At ~20 Ma subduction pattern reorganization resulted in 8000 km long, E-W arc-trench system from Sumatra to Buru. Prior to arrival of Australian continent at SE Asian continental margin, a N-S oriented Sulawesi-Mindanao volcanic arc existed ~800 km E of Borneo. New Guinea and Sepik collided with Inner Melanesian island arc, opening Australian Plate to influence of WNW moving Pacific Plate. At ~10 Ma S-dipping subduction zone broke through N of Irian Jaya but no volcanism. Oil and gas in pull-apart basins of Irian Jaya in Tertiary deposits, but source rocks in collision zones likely Mesozoic. Exploration targets in E Indonesia: Arafura Shelf intracratonic basins, marginal (rift) basins skirting S and E of Banda arc, collision zones of Timor, Seram, E Sulawesi and W Papua thrustbelt)

Katili, J.A. & S. Asikin (1985)- Hydrocarbon prospects in complex paleo subduction zones. Proc. 14th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 1, p. 83-103.

(No significant hydrocarbons in accretionary wedge of W Indonesia. Sumatra fore-arc basin lacks coarse quartz-rich reservoirs; hydrocarbon source rocks are immature. Arc-trench system of E Indonesia different. Two phases in Banda Arc: (1) Indian-Australian plate oceanic crust subducted under Banda oceanic plate, (2) subduction of Australian continental crust into Banda Arc subduction zone. Oceanic crust dipping in Sumatra-Java Trench covered by thin pelagic sediments, but parts of shelf -slope sequences of Arafura Platform carried into Tanimbar Trench and Aru Through. Consolidated lower part of sequence greater shear strength and little material from there scraped off and incorporated in wedge. If rich in organic material, tectonic processes in trench and beneath wedge will mature organic material. If reservoir rocks exist in front of wedge, migration and accumulation possible. Oil and gas in subduction complex of E Sulawesi may be explained in same way)

Katili, J.A. & S. Asikin (1987)- Hydrocarbon prospects in complex paleo subduction zones. Proc. 22nd Sess. Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Guangzhou 1985, 2, p. 279-301.
(Same paper as above)

Katili, J.A. & H.M.S. Hartono (1983)- Complications of Cenozoic tectonic development in Eastern Indonesia. In: T.W.C. Hilde & S. Uyeda (eds.) Geodynamics of the western Pacific-Indonesian region, American Geophys. Union (AGU) and Geol. Soc. America (GSA) Geodyn. Ser. 11, p. 387-399.
(Tectonic development of Indonesian archipelago as SE margin of Eurasian plate can be followed since Late Paleozoic from continental nucleus located between Sumatera and Kalimantan Archipelago developed E-ward until it attained present position as represented by Banda volcanic arc. During Late Paleozoic and throughout Mesozoic development of Sunda Arc system regular and always had arcuate shape of volcanic arc around continental margin. Tertiary more complicated)

Katili, J.A. & P. Marks (1963)- Geologi. Departemen Urusan Research Nasional, Kilatmadju Bandung, p. 1-855.
('Geology'. First general geology textbook in Indonesian language, with numerous illustrations from Indonesia)

Katili, J.A. & J.A. Reinemund (1984)- Southeast Asia: tectonic framework, earth resources and regional geological problems. Int. Union Geol. Sciences (IUGS), Publ. 13, p. 1-68.

Katili, J.A. & R. Soetadi (1971)- Neotectonics and seismic zones of the Indonesian Archipelago. In: B.W. Collins & R. Fraser (eds.) Proc. Int. Symposium Recent crustal movements and associated seismicity, Bull. Royal Soc. New Zealand 9, p. 39-45.

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(online at: http://jrisetgeotam.com/index.php/NIGM/article/viewFile/164/159)
(Four types of Quaternary tectonic deformation. Marine terraces around Bangka and Billiton on stable Sunda Shelf formed by Quaternary sea level highstands. Post-glacial strandlines at 0.5-1m (3500 BP), 1.5-2m (5000 BP) and 5m (6000 BP) above present sea level)

Kaufmann, G.F. (1951)- The tectonic framework of the Far East and the influence on the origin and accumulation of petroleum. Proc. 3rd World Petroleum Congress, The Hague, 1, p. 87-118.

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(online at: http://adsabs.harvard.edu/abs/2013AGUFM.T41B2574K)
(Summary of main structural elements of E Indonesia, from Sulawesi in W to W Papua in E, across N part of Banda Arc. N boundary of 'Birds Head' of W Papua is sinistral Sorong strike-slip fault zone with >48km displacement over last few Myrs. W boundary fault of Cendrawasih Basin defines E boundary of Birds Head and corresponds to Wandamen Peninsula with high-P metamorphic rocks with exhumation ages from 4- 1 Ma. Birds Head and Pacific Plate coupled, so Birds Head completely detached from Irian Jaya. Etc.)

Kenyon, C.S. & L.R. Beddoes (1977)- Geothermal gradient map of Southeast Asia. SEAPEX/ Indonesian Petroleum Assoc. (IPA) Publ., p.
(see also later version by Rutherford & Qureshi 1981)

Kenyon, C.S., K. Roberti, M. Hughes-Clarke & M. de Matharel (1976)- Geothermal gradient map of Indonesia, a progress report. Proc. 5th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 81-90.

Kertapati, E.K. (2006)- Aktivitas gempabumi di Indonesia- perspektif regional pada karakteristik gempabumi merusak. Centre for Geological Survey, Bandung, Spec. Publ., p.
('Earthquake activity in Indonesia- regional perspective')

Kertapati, E.K., A. Soehami & A. Djuhanda (1992)- Seismotectonic map of Indonesia, 1: 5 million. Geol. Res. Dev. Center, Bandung.
(see also 2nd Edition, 1998)

Kessler, F.L. & J. Jong (2016)- The South China Sea: sub-basins, regional unconformities and uplift of the peripheral mountain ranges since the Eocene. Berita Sedimentologi 35, p. 5-54.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-35-palaeogene-of-the-eastern-margin-of-sundaland-part-1.html)

Ketner, K.B. (1973)- Geologic research in Indonesia. U.S. Geol. Survey (USGS) Open-File Report 73-143, p. 1-46.

Klompe, Th.H.F. (1957)- Pacific and Variscan orogeny in Indonesia. A structural synthesis. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 113, p. 43-87.
(Pre-plate tectonic tectonic synthesis of Indonesia. Stratigraphic and structural features of Indonesia suggests major differences between E and W parts. In E Indonesia extensive Paleozoic ('Variscan orogeny') land mass development, modified by later regeneration and epeirogenic movements. No trace of Paleozoic/ Variscan orogeny in W part, but widespread effects of Pacific orogeny (Mesozoic))

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(Same as Klompe (1957) paper above)

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(On Permian- Triassic volcanics of C Sumatra, Triassic Pahang volcanics in Malay Peninsula and W-C Borneo. Two zones of Late Paleozoic- E Mesozoic volcanic activity: (1) northern, more acid zone in Malaya and C Borneo, and (2) southern, more basic zone in Sumatra. Djambi volcanites do not originate from Malaya, but form part of autochthonous series. This, and lack of indications for thrust movements in west C Sumatra, make occurrence of postulated sheet structures in Djambi and other parts of west C Sumatra rather doubtful. 'Perfect correlation between Permian volcanic series of Jambi and Silungkang Fm', Padang Highlands, W Sumatra, but different from Pahang Volcanics of Malay Peninsula)

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(Same paper as Klompe et al. (1957), above)

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(Collection of papers by professor R. Soeria-Atmadja 1974-2001, reprinted at retirement from ITB)

Koesoemadinata, R.P. & A. Pulunggono (1974)- Offshore Tertiary sedimentary basins in Indonesia. Proc. Inst. Teknologi Bandung (ITB) 8, 3, p. 91-107.
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(Early overview of offshore basins, originally presented at 12th Pacific Science Congress in 1971. With schematic cross sections of Sunda Shelf, Java Sea and Paternoster Platform)

Koesoemadinata, R.P., L. Samuel & M.I. Tachjudin (1995)- Subsidence curves and modelling of some Indonesian Tertiary basins. In: G.H. Teh (ed.) Southeast Asian basins: oil and gas for the 21st century, Proc. AAPG-GSM Int. Conf., Kuala Lumpur 1994, Bull. Geol. Soc. Malaysia 37, p. 205-230.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1995a15.pdf)
(Subsidence curves of N and S Sumatra, Barito, NE Java and Salawati Basins constructed from well-bore data, calibrated by micropaleontology and seismic sections. All basins Tertiary age, but differences and similarities in basin forming mechanics, depositional fill and final modifying tectonics. Barito Basin typical foreland basin subsidence curve related to flexuring of continental crust, related to docking of Paternoster-East Sunda microcontinent on Sunda continent. N and S Sumatra and NW and NE Java basins back-arc basins)

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(Shales exponential reduction of initial porosity value of 75% to 38% in upper 500m. From 500m down linear reduction to 3% below ~3000m?)

Koning, L.P.G. (1952)- Earthquakes in relation to their geographical distribution, depth and magnitude. I. The East Indian Archipelago. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, B55, 1, p. 60-77.
(First of series of papers on global distribution of earthquakes. Deep-focus earthquakes in Indonesia not arranged in single inclined surface, sloping to depth of 600 km and dipping towards continents, as previously suggested, but two separate seismic zones: (1) from W coast of Sumatra to Java, Lesser Sunda Islands to New Guinea and (2) J-shaped belt in NE part)

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(online at: www.repository.naturalis.nl/document/549606)
(Some reported tektites in Indonesian region are true extra-terrestrial tektites (billitonites, Java, Thailand, Luzon), others are 'pseudo-tektites' (pebbles of volcanic glass/ obsidian; Palembang, Garut, Gunung Kiamis))

Koto, B. (1899)- On the geologic structure of the Malayan Archipelago. Jour. Coll. Sci. Imperial University of Tokyo 11, 2, p. 83-120.
(online at: http://repository.dl.itc.u-tokyo.ac.jp/dspace/bitstream/2261/32675/1/jcs011007.pdf)
(Early review of Indonesia geology by Japanese author)

Koulali, A., S. Susilo, S. McClusky, I. Meilano, P. Cummins, P. Tregoning, G. Lister, J. Efendi & M.A. Syafi'i (2016)- Crustal strain partitioning and the associated earthquake hazard in the eastern Sunda- Banda Arc. Geophysical Research Letters 43, 5, p. 1943-1949.

(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016GL067941)
(GPS measurements of surface deformation show convergence between Australian Plate and Sunda Block in E Indonesia partitioned between megathrust and continuous zone of back-arc thrusting extending 2000 km from E Java to N of Timor. Partitioning occurs via CCW rotation of arc segment called Sumba Block, and left-lateral movement along major NE-SW strike-slip fault W of Timor. Also W-ward extension of back-arc thrust for 300 km onshore into E Java, accommodating slip of ~6 mm/yr)

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(online at: www.nat-hazards-earth-syst-sci.net/10/1899/2010/nhess-10-1899-2010.pdf)
(Review of variations in character along Sunda subduction zone from N Sumatra to East of Java. Off Sumatra wider seismogenic zone with larger earthquakes. Variations controlled by increasing age of crust of subducting plate from W to E, decrease in thickness of sediment cover from W to E, topography of downgoing plate, etc.)

Kreemer, C., W.E. Holt, S. Goes & R. Govers (2000)- Active deformation in Eastern Indonesia and the Philippines from GPS and seismicity data. J. Geophysical Research 105, B1, p. 663-680.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999JB900356/epdf)
(GPS and seismicity data show Java Trench delineates Australian plate (AU)- Sunda block boundary W of Sumba, but E of Sumba, convergence distributed over back-arc and Banda Sea and no subduction at Timor Trough. In New Guinea most motion is strike-slip in N part of island, delineating Pacific- Australian plate boundary. Some trench-normal convergence at New Guinea Trench, evidence that strain is partitioned to accommodate oblique Pacific- Australia motion. Sulawesi Trench may take up some of AU-Sunda motion)

Kuenen, P.H. (1932)- Remarks on the undation theory of Van Bemmelen. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 35, 9, p. 1155-1160.
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(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)
(Two types of deep water basins in Indonesia, each with two sub-groups)

Kuenen, P.H. (1935)- Geological interpretation of the bathymetrical results. In: The Snellius Expedition in the eastern part of the Netherlands East Indies (1929-1930), 5. Geological Results, 1, Kemink, Utrecht, p. 1-124.
(Descriptions and interpretations of E Indonesia seafloor morphology. Includes overview of earlier tectonic syntheses of region)

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(Sandbox compressional deformation modeling of crustal buckling)

Kumar, R.T.R., T.K. Maji & R.R. Nair (2010)- Assessment of flexural analysis applied to the Sumatra-Java subduction zone. J. Earth System Science 119, 5, p. 717-730.
(Lithospheric mechanical strength variations of Indian Ocean subduction zone in Sumatra-Java from Bouguer gravity and bathymetry data. Strong coupling between subducting and over-riding plates and deeper mantle contributing to shallow focus-high magnitude seismicity for Sumatra, and vice versa for Java)

Kurniawan, A. (2014)- Geologi batuan granitoid di Indonesia dan distribusinya. Masyarakat Ilmu Bumi Indonesia 1, E-3, p. 1-16.
('The geology of granitoid rocks in Indonesia and their distribution'. Brief review of distribution of granitoids in Indonesia. In Sumatra 3 groups: (1) Volcanic Arc Granitoid/ U Triassic- Pliocene (203- 5 Ma), (2) Main Range

Granitoid/ E Triassic- E Cretaceous (247-143 Ma), (3) Eastern Granitoid/ U Permian- U Jurassic (264-216 Ma). In Kalimantan 4 groups: (1) Natuna-Semitau-Sanggau/ Triassic-Jurassic, (2) Meratus/ Carboniferous-Cretaceous, (3) Schwaner/ Cretaceous- E Tertiary, (4) C Kalimantan Tertiary Arc/ Late Eocene- E Miocene. Also Java, Lesser Sunda Islands, Sulawesi- Banggai Sula (3 groups) and W Papua (2 groups: (1) Birds Head/ Permian-Triassic and (2) Papuan foldbelt U Pliocene). No maps)

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(online at: www.ccop.or.th/download/pub/CCOP-geoheritage-book.pdf)
(Proposed geological monuments in Indonesia)

Lacroix, M.A. (1932)- Les tectites de l'Indochine. Archives Museum Hist. Nat., Paris, ser. 6, 8, p. 139-236.
('The tektites of Indochina'. Old but extensive review of distribution of Pleistocene glass tektite field from Indochina to W Indonesia and Australia. Variously called billitonite, australite, etc. See also Verbeek 1897, Von Koenigswald 1960, Chapman 1964, Stauffer 1978, Ford 1988, etc.))

Landenberger, E. (1922)- Die Geologie von Niederlandisch-Indien, nebst einem kurzen Anhang Die Geologie der Philippinen. Schweizerbart Verlag, Stuttgart, p. 1-216.
('The geology of Netherlands Indies, with a short chapter on the geology of the Philippines'. Early overview of Indonesia geology for travelers; nothing new)

Lebedev, S. & G. Nolet (2003)- Upper mantle beneath Southeast Asia from S velocity tomography. J. Geophysical Research 108, B1, 2048, p.
(3D S-velocity model of SE Asian- W Pacific upper mantle with 400-km lateral resolution. Hard to interpret?)

Lee, C. & R. McCabe (1986)- The Banda-Celebes-Sulu Basin: a trapped piece of Cretaceous- Eocene oceanic crust? Nature 322, 6074, p. 51-54.
(Banda basin underlain by oceanic crust, previously interpreted as trapped oceanic basin which was once continuous with Late Jurassic Argo abyssal plain (Bowin et al., etc.). Newly identified magnetic reversal ages, heatflow data, etc., suggest Celebes and Sulu Seas may have been continuous with Banda basin, and are all part of dissected Cretaceous-Eocene oceanic basin (Banda and Sulu Seas basins age now commonly accepted to be Late Miocene- Pliocene (Hamilton 1979, Hinschberger et al. 2001); JTvG))

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(Paleocene (60 Ma)- Recent plate reconstructions of SE Asia)

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(Reconstructions of SE Asia region from 60- 5 Ma. Impact between Greater India and SE Asia in NW part of SE Asia, probably from M Eocene- E Miocene, W of Burma block, so no reason to assume Sumatra, Malay Peninsula, and Kalimantan should extrude to SE along left-lateral Mae Ping and Three Pagodas fault zones as suggested by Peltzer and Tapponnier (1988). Opening of C Thailand basins, Gulf of Thailand, and Malay Basin require dextral megashear zone to compensate relative motion between Indochina and Malay Peninsula, which may extend into W Kalimantan and serve as boundary between Indochina block and Kalimantan)

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(N Banda-Molucca area at junction of three converging plates, a mosaic of remnant and active island arcs and continental and oceanic fragments. NW-SW late Neogene thrusts and anticlines in NE part of S Halmahera. S of Halmahera several sinistral, transcurrent, reverse faults prolong Sorong fault. From deep Salawati basin to N Buru large tectonic zone with mud diapirs. Due to collision, possible remnants of Molucca Sea Plate outcrop in E arm of Sulawesi and Obi Island. Good cross-sections Seram- Halmahera area)

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(New tectonic model requires separate Timor microplate in Neogene, now part of Banda collision zone. Paleomagnetic data suggests Timor island contains allochthonous terranes that were separated from N Australian margin by >2500km in E Cretaceous; Late Neogene Banda Arc not related to subduction of 2500km of oceanic crust between Cretaceous- Pliocene; upside-down metamorphism of Late Miocene age in soles of ultramfites requires obduction of hot lithosphere, etc. No figures)

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(Tertiary tectono-stratigraphic evolution of SE Asia four phases: (1) 50-43.5 Ma: Start of India-Eurasia collision, reducing in convergence along Sunda Arc subduction system, resulting in extension in adjacent fore-arc and back arc areas; (2) 43.5-32 Ma: termination of oceanic subduction beneath India-Eurasia collision zone caused plate reorganization, producing second phase of rifting, with onset of extension in S China Sea and Makassar Straits failed rift. First major collision of Luconia Shoals block with subduction along NW Borneo margin; (3) 32-21 Ma): first phase of S China Sea seafloor spreading, rotations creating Malay Basin and inversion along Sunda Arc ending rifting in these basins; (4) 21–0 Ma: cessation of first phase of seafloor spreading inS China Sea caused by collsion of Baram block with NW Borneo subduction system. Collisions in NW Borneo, Sulawesi and Timor areas, with rotation of Sumatra resulted in extensive structural inversion)

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(In Paleogene SE Asia experienced rift phase with no significant transtension or transpression. Extrusion tectonics also fails to explain origin of backarc basins of Sumatra and Java, Malay Basin, etc. Paleogene evolution mainly driven by M Eocene plate re-organisation caused by India-Eurasia collision, with extrusion tectonics as Neogene modifier to basins formed by Paleogene rifting. Model suggests all Tertiary rotations in SE Asia are clockwise, initially due to opening of S China Sea and later due to effects of extrusion tectonics)

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(Eocene larger foram assemblages can help distinguish between carbonates from Asian-Pacific-Mediterranean (Pellatispira-Assilina) or Australian- New Guinea (Lacazinella) realms (Nummulites and Discocyclina-Asterocyclina present in both realms))

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(Retreats or advances in subducting plates trench hinge important control on presence or absence of magmatism. Several locations in SE Asia show magmatism with geochemical signature of subduction, but are far from active subduction zones. Such magmatism requires earlier period of mantle enrichment by subduction but may also result from localized extension. Adakitic magmatism occurred in tectonic settings where there is no evidence for subduction of young oceanic crust at that time)

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(Upper Triassic carbonates around Banda Sea (Sinta Ridge, C-E Sulawesi, Buru, Seram, Misool and off NW Australia (Wombat Plateau, W Timor). In Upper Triassic, Seram-Buru and E Sulawesi/ Kolonodale Block two separate entities, former located in more tropical position. Seram-Buru Block originated from Irian Jaya area, Kolonodale Block (E Sulawesi) from Australian NW Shelf/ Argo Abyssal Plain. No clear similarities between Triassic of Timor and Papua-New Guinea, NW coast of Australia, Wombat Plateau. Allochthonous Triassic of Timor sedimentary evolution different from that of Australian margin and microcontinents of Banda Sea)

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(Active tectonics of Sumatra, Philippines, New Guinea fold-and thrust belt, Huon-Finisterre collision and San Cristobal trench can be understood in terms of upper plate deformation associated with oblique convergence. W Java may also exhibit partitioning of oblique subduction. Structures accommodating normal and shear components of motion often very close. Arc-parallel strain rates estimated for forearcs of region. In Sumatra oblique convergence results in NW translation and stretching of forearc area)

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(Radiometrically dated emergent coral terraces from SE Indonesia provide estimates of vertical strain in Banda Arc-continent collision complex. Roti island uplift 170m in last ~125,000 years. Late Quaternary surface uplift rates vary significantly along strike of Banda orogen. Vertical displacement rates greatest in young parts of orogen where shelf-slope break recently has been underthrust beneath orogenic wedge, as at Roti, and in older parts of orogen where retroarc thrust faulting occurs, as at Alor island)

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(Arc-continent collisions taking place today in NE New Guinea and E Indonesia and Taiwan, all started between 7- 3 Ma. Evidence of older collisions in E Indonesia and New Guinea)

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(online at: https://pdfs.semanticscholar.org/4f6d/18a4c0e67d6a95281d4fb7916cf6d70b42de.pdf)
(Tectonostratigraphies of Outer Banda Arc island suggest these were once part of Sundaland margin and that N and S Banda Sea basins are Late Cenozoic extensional features (first author to propose the slab rollback model for Banda Seas, subsequently supported with tomographic data by Spakman and Hall 2010; JTvG). Three separate tectonostratigraphic groups (1) Sundaland margin (SW Sulawesi, Sumba) (2) Birds Head/ Sula Spur; with Late Paleozoic granites similar to central PNG; and (3) Banda Association (Buton, Buru, Seram, W Kai, Banda ridges, E Sulawesi; rifted from Gondwanaland in Jurassic)

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(Late Miocene-Mid-Pliocene compression resulted in emplacement from N of large thrust sheets on deformed Australian margin near Timor. During last 3 Ma compression unimportant but vertical movements common and rapid. In N Timor and Banda volcanic arc, uplift is occurring where gravity data suggest there should be subsidence. Possible explanation of high gravity values is cold, dense, subducted slab which is now sinking independently after rupture near continental margin. Because of rupture, sinking slab no longer exerts downward pull on overlying lithosphere which now rebounds isostatically)

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Milsom, J. & V. Rocchi (1998)- The long wavelength gravity field in SE Asia. J. Geol. Soc. China, Taipei, 41, 4, p. 489-495.
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(High-density ophiolitic rocks outcropping on islands around Banda Sea in many cases associated with strong gravity anomalies and steep gravity gradients. Bouguer gravity levels and gradients over extensive E Sulawesi Ophiolite generally low. Most positive anomalies in Banda Arc due to ophiolites superimposed on steep regional gravity gradient but in W Seram spatial separation between two. On Buru gradient >10 mGal/km suggests presence of shallow, very dense rocks, despite absence of ophiolites in outcrop. Ophiolite distribution on Sulawesi and around Banda Sea compatible with ?Oligocene collision that produced Sulawesi orogen, which collapsed following collision with Australian-derived microcontinent)

Milsom, J., J. Thurow & D. Roques (2000)- Hydrocarbon source rocks and the paleogeography of Eastern Indonesia. SEAPEX Press 3, 4, p. 42-44, 49.
(Many of the islands surrounding Banda Sea are fragments of 'East Sulawesi Microcontinent' (ESM), which rifted off Australia- New Guinea margin in Late Triassic or E Jurassic, to collide with Eurasia margin in E

Miocene. Parts of this continent are now in E Sulawesi, Buton, Buru and Seram and share Late Triassic bituminous marine shale deposits. Parts of Timor similar as well. Late Triassic of Sula Spur and New Guinea in continental facies and with granite intrusions, so clearly still part of Gondwana. In 'bacon-slicer model' Sula Spur therefore must have rifted off New Guinea at later date)

Mitchell, A.H.G. (1984)- Initiation of subduction by post-collision foreland thrusting and back-thrusting. J. Geodynamics 1, 2, p. 103-120.
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(Island chain from Timor and Babar to Ceram and Buru much alike in geological structure: nucleus of thrust-faulted Permian- Eocene, covered by Neogene-Pleistocene that is not folded but generally uplifted high above sea level. Two main thrust sheets on Timor: lower 'Tethys sheet' (Triassic-Cretaceous oceanic deposits) and upper 'Fatu sheet' (Permian- Eocene in different facies; shallow marine limestones, schists, serpentinites, often found as isolated blocks). With simplified geologic map and cross-section of Central Timor)

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(Geology chapter in 'The seas of the Netherlands East Indies' book. Early overview of morphology and bottom sediments of Indonesian Seas, distribution of coral reefs, etc. Earliest recognition of incised Pleistocene river channels on Sunda Platform)

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(On timing of rifting and uplift events of Sundaland, constrained by palynology and sequence stratigraphy. Makassar/ Java Sea rifts initially formed at start of M Eocene (~49 Ma), with non-marine deposition and low paleo-elevations, followed by marine deposition in second rift phase in Late Eocene. Extensive uplift in Borneo began in latest E Miocene, and further uplift at ~8 Ma. N and W rifts of Sunda region initiated in Late Eocene, with synrift phase ending at ~31 Ma. Some rifts, especially in W Natuna and Malay Basin, characterised by Oligocene deep lake systems, which persisted for >6 Myrs)

Morley, R.J. (2018)- The complex history of mountain building and the establishment of mountain floras in Southeast Asia and Eastern Indonesia. In: C. Hoorn & A. Antonelli (eds.) Mountains, climate and biodiversity, Wiley, p. 475-494.

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(Discussion of main phases of plant dispersal into and out of SE Asia in relation to plate tectonics and changing climates. Late Cretaceous poorly understood, but Paleocene topography mountainous, and climate probably seasonally dry. India's drift into perhumid low latitudes in Eocene brought dispersal into SE Asia of megathermal angiosperms which originated in W Gondwana, starting at ~49 Ma, and with terrestrial connection after~41 Ma. Oligocene seasonally dry climates except along E and SE seaboard of Sundaland, but with collision of Australian Plate with Sunda at end-Oligocene widespread perhumid conditions in region. With Late Miocene strengthening of Indian monsoon, seasonally dry conditions expanded. Some dispersals from Australasia after collision with Sunda. Pleistocene refuge theory applies to SE Asian region).

Morley, R.J. & H.P. Morley (2018)- Montane pollen indicates character of Mid Cenozoic uplands across Sunda Shelf. In: PESGB SEAPEX Asia Pacific E&P Conference, London, 4p *(Extended Abstract)*

(Montane pollen common element of palynomorph assemblages across Sundaland region and provides insight into paleoaltitudes and paleoclimates from Paleocene- Pliocene. In Late Eocene-Oligocene, Natuna Arch, Con Son Swell and Ammanite Ranges likely of sufficient altitude to support temperate broadleaf and cool temperate conifer forests at summits, with altitudes of 2500m or more. Late Miocene-Pliocene uplifts in Borneo, (Kinabalu, Meratus) and Sumatra Barisan Range. Volcanoes of Java formed in Pleistocene)

Morley, R.J., H.P. Morley & T. Swiecicki (2016)- Mio-Pliocene palaeogeography, uplands and river systems of the Sunda region based on mapping within a framework of VIM depositional cycles. Proc. 40th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA16-506-G, p. 1-26.
(Paleogeography and sedimentation rates for Sunda region. Paleogeographic maps for 10 E Miocene-Pleistocene time slices. In M Miocene bulk of sedimentation across Sunda region on enlarged Proto-Mahakam Delta (4 times larger than today's Mahakam Delta) with minimal sedimentation off Sarawak. In latest Middle-Late Miocene sedimentation rates increased off Sarawak and sharply reduced in Makassar Straits; interpreted to reflect redirection of sediment transport as result of Borneo uplift and capture of Proto Mahakam River by Sarawak rivers in Late Miocene)

Morley, R.J., H.P. Morley & T. Swiecicki (2017)- Constructing Neogene palaeogeographical maps for the Sunda region. In: SEAPEX Exploration Conference 2017, Singapore, Session 7, 10p. *(Extended Abstract)*
(online at: https://www.seapex.org/wp-content/themes/seapex/images/pdf/Session-7/7_1-Palynova.pdf)
(Generalized paleogeography maps of Sunda shelf for 10 time slices from E Miocene (23 Ma)- Pleistocene. Maximum development of 'Proto-Mahakam' delta at ~15-12 Ma, at time of limited clastic deposition rates along N Borneo margin (major deltas here Late Miocene- Pliocene). (abbreviated version of Morley et al. 2016))

Mubroto, B., Sartono & H. Wahyono (1993)- Sebaran arah kemagnetan purba di Indonesia, scale 1:5,000,000. Geol. Res. Dev. Centre (GRDC), Bandung.
('The distribution of ancient magnetism directions in Indonesia'. 1:5M scale map compilation of paleomagnetic direction data from Indonesia. Includes Birds Head paleolatitudes for Late Carboniferous Aimau Fm (47˚S), E Permian Aifat Fm (46˚S), Late Permian Ainim Fm (35˚S), and Late Triassic- Jurassic Tipuma Fm (42˚S))

Mukti, M.M., S. Aribowo & A. Nurhidayati (2018)- Origin of melange complexes in the Sunda and Banda arcs: tectonic, sedimentary, or diapiric melange. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012003, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012003/pdf)
(Brief review of possible different melange types of W Sumatra, Java, Timor. Remnants of Cretaceous subduction zone at Ciletuh, Luk Ulo and Meratus formed along S margin of Sundaland subduction and are known as tectonic melanges. Younger melange complexes in Sunda arc (Nias) and Banda arc (Timor) more likely diapiric melange)

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Murphy, R.W. (1975)- Tertiary basins of Southeast Asia. Proc. South East Asia Petroleum Expl. Soc. (SEAPEX) 2, p. 1-36.
(46 basins, classified into four types: shelfal, continental margin, archipelagic and marginal seas)

Murphy, R.W. (1976)- Pre-Tertiary framework of Southeast Asia. SEAPEX Offshore SE Asia Conf., Singapore 1976, 3, p. 1-2. *(Abstract only)*

Murphy, R.W. (1987)- Southeast Asia: a tectonic triptych. In: M.K. Horn (ed.) Trans. 4th Circum Pacific Energy and Mineral Resources Conf., Singapore 1986, p. 395-400.
(SE margin of Eurasia has been compressional margin since Late Paleozoic, onto which dozens of arcs and microcontinents from Gondwanaland accreted. Map showing 10 Triassic-Recent magmatic arc systems. Late Cenomanian- E Turonian accretion of Meratus ophiolite cuts obliquely across older E-W trending arcs. Throughgoing wrench faults W of Sunda Strait right-lateral, those to E are left-lateral. Etc.)

Murphy, R.W. (1992)- Southeast Asia: linkage of tectonics, unconformities and hydrocarbons. In: M. Flower, R. McCabe & T. Hilde (eds.) Southeast Asia structure, tectonics and magmatism, Symposium Texas A&M University, College Station, 5p. *(Extended abstract only)*

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(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1998008.pdf)
(SE Asia reconstruction, modification of Hall (1996). Sunda and Philippine Sea plates treated as rigid blocks between 50-15 Ma. Borneo CCW rotation, required by paleomagnetic data, probably Late Cretaceous in age)

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(Collection of papers dealing with tectonics, deposits, paleoenvironments of Permian- Eocene Tethys Ocean(s), now consumed in Alpine- Himalayan- SE Asian foldbelts)

Nayoan, G.A.S. (1995)- East Indonesia Mesozoic geology: compilation of field data. In: The Mesozoic in the eastern part of Indonesia, Symposium, 9p.

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(Overview of Mio-Pliocene carbonate distribution in Indonesia)

Netherwood, R. (2000)- The petroleum geology of Indonesia, overview of Indonesiaǒs oil and gas industry. In: Indonesia 2000 Reservoir Optimization Conference, Jakarta, PT Schlumberger Indonesia, p. 174-227.
(Elegant overview of Indonesia Tertiary geology, basins and hydrocarbons)

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(SE Asia paleogeographic maps at 3, 17, 25 Ma)

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(Models of tectonic evolution of E Indonesia, with reconstructions of 4 and 17 Ma)

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(Mainly summary of activities of IGCP project 355. Paleomagnetic work on Sumatra suggests Sumatra was part of Gondwanaland in Triassic (off NW Australia), with paleolatitude close to 38°S and 62° CW rotation between Triassic and E Tertiary. Diagrammatic SE Asia reconstructions of 40, 25, 17 and 3 Ma, with implications for circulation of Indo-Pacific region. Neogene Indonesian seaway effectively closed in early M Miocene (17-15 Ma) and completely severed by ~6 Ma, preventing interchange between surface water of tropical Pacific and Indian oceans)

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(Discussion of collision of Australian continent with East Sunda- Banda island arcs, back arc Banda Basin, back arc thrusting, etc. Banda Basin probably formed as slices of N New Guinea were transported W with Pacific plate and collided with island arc in E Sulawesi)

Nugraha, A.D., H.A. Shiddiqi, S. Widiyantoro, M. Ramdhan, W. Wandono, S. Sutiyono & T. Handayani (2014)- Teleseismic double-difference earthquake hypocenter relocation in the Indonesian region. American Geophysical Union (AGU), Fall Meeting, San Francisco, T53C-4709 *(Abstract and poster)*
(New relocations of 25,000 earthquake hypocenters in Indonesian region, using teleseismic double-difference relocation algorithm. Average epicenter relocation shift 6.2 km)

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Nugroho, H. (2005)- GPS velocity field In the transition from subduction to collision of the Eastern Sunda and Banda Arcs, Indonesia. Masters Thesis, Brigham Young University, Utah, p. 1-89.
(online at: http://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=1552&context=etd)
(GPS measurements from 14 sites in active E Sunda- Banda arc during 2001-2003. Most blocks move in same direction as Australian lower plate, but at different rates. Block boundaries may exist between Lombok and Komodo, Flores and Sumba, Savu and W Timor, and between Timor and Darwin. Timor Trough may account for 20 mm/yr of motion between Timor and Darwin. Major transverse fault off W Timor separates Savu/ Flores/ Sumba block from Timor/Wetar Block. Flores thrust moves E Sunda arc N relative to Asia, by decreasing amounts to W. Back-arc Wetar Thrust system takes up most of plate convergence between Australia and Asia)

Nugroho, H., R. Harris, A.W. Lestariya & B. Maruf (2009)- Plate boundary reorganization in the active Banda Arc-continent collision: insights from new GPS measurements. Tectonophysics 479, 1-2, p. 52-65.
(GPS velocities suggest three Sunda Arc-forearc regions, ~500 km long, with different amounts of coupling to Australian Plate. Movements relative to SE Asia increases from 21% to 41% to 63% E-ward. Regions bounded by deformation front to S, Flores-Wetar backarc thrust system to N and poorly defined structures on sides. Suture zone between NW Australian margin and Sunda-Banda Arcs still evolving with >20 mm/yr of movement measured across Timor Trough between Timor and Australia)

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(Tomography data of SE Asia generally uses global seismic data. Japan-Indonesia Seismic NETwork (JISNET) seismic stations in C to W Indonesia used to better understand seismic structure of area. Claim better resolution data, but poorly illustrated: small, low resolution time slices, no cross sections)

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(Present regime of oblique subduction in SE Asia initiated in M Eocene. Resulting dextral shear drove basin genesis and development. Effects identified from Malay Basin to C Thailand in East. Late Eocene-Oligocene phase formed rifts in C Sumatra, later spreading N to Mergui Basin and S to Sunda Basin. In Oligocene, dextral shear initiated Thailand basins and Malay Basin. Subsidence- extension continued until late M Miocene. Late Oligocene-E Miocene back arc basins subsidence extended out from initial rifts possibly due to withdrawal of heat beneath basins by cold subducted slab. Transpressional deformation started in Sumatra basins in M Miocene and continued through Late Miocene- Pliocene, resulting in uplift of Barisan Mts. Sumatra forearc transferred to Burma Plate with establishment of dextral Sumatra FZ in Pliocene)

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(Cenozoic SE Asia three major tectonic events: collision of India- Eurasia, rotational history of Philippine Sea plate and ongoing collision of Australia with E Indonesia. Models of Eocene India-Eurasia collision imply extrusion along major strike-slip faults or crustal thickening and block rotation)

Packham, G.H. & D.A. Falvey (1971)- An hypothesis for the formation of marginal basins in the western Pacific. Tectonophysics 11, 2, p. 79-109.

(Small ocean basins, or marginal seas, mainly located on W margin of Pacific Ocean. Tectonically they belong to Eurasian and Indo-Australian crustal plates to W and are bounded on E side by island arc-trench systems. Basins generally reach normal oceanic depths, but also contain seamounts, linear seamount chains and areas of submerged continental crust (rises). No evidence of mid-ocean ridge systems. Marginal basins also characterized by high regional gravity anomalies, high heat flow and linear magnetic anomalies. Geological data suggest formation of marginal seas by rifting of volcanic arc from adjacent continent, possibly by generation of oceanic crust by mantle upwelling immediately behind andesitic island arc, producing asymmetrical seafloor spreading. In Indonesian region: Andaman Sea, Sulu Sea, Celebes Sea, Banda Sea, and South China Sea basins)

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(Different heavy mineral assemblages from Mesozoic granites of Sumatera, Bangka and Kalimantan. With overview of Mesozoic granites in W Indonesia)

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(Mainly on heavy minerals from samples around Mesozoic granitoids of N Sumatra (Sibolga (~264 Ma; M Permian) and Tanjung Balai; both magnetite- hematite- chalcopyrite dominated), Bangka (Triassic; cassiterite-wolframite- ilmenote- dom.) and C Kalimantan (Kuala Kurun; magnetite- chalcopyrite- ilmenite-dom.))

Panggabean, H., D. Sukarna & E. Rusmana (2007)- The introduction of regional Cretaceous geology in Indonesia. In: Lee I.Y. et al. (eds.) 2nd Int. Symposium Paleoclimates in Asia during the Cretaceous, Int. Geosc. Program (IGCP) Project 507, Seoul 2007, Contr. 1, p. 79-97.

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(Overview of Indonesia sedimentary basins. Classified by maturity for petroleum exploration into mature (14), semi-mature (9) and frontier (18) basins)

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(online at: www.ccop.or.th/download/pub/42as_ii.pdf)

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(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2003GC000619)
(Quantitative analyis the area-age distribution of sedimentary, igneous and metamorphic rock outcrops, based on 1997 CCOP digital surface geology maps of E and SE Asia. Sedimentary rocks 73.3%, volcanic rocks 8.5%, plutonic rocks 8.8%, ultramafic rocks 0.9% and metamorphic rocks cover 8.6% of surface area)

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(Global plate motion model for 17 major and minor tectonic plates from 106 GPS stations)

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(Rupture of continental plate subducting below forearc produces fold-thrust mountain belt with fast overthrusting of nappes. Post-rupture plate unflexing provides mechanism for foreland basin formation. Accounts for origin of Timor Trough, its imbrication and contemporaneous extension in outer arc, as well as reversal of subduction direction after emplacement of nappes)

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('Contribution of slab melts to arc magmatism: examples from South-East Asia and experimental approach'. Adakitic magmas product of melting of basaltic oceanic crust. Examples from Philippines and Borneo)

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Pubellier, M. (2013)- Re-exploring the formation processes of SE Asian Basins, from rifting to mountain belts. In: Proc. Nat. Geoscience Conf., Ipoh (NGC2013), Geol. Soc. Malaysia, p. 5-7. *(Extended Abstract)*
(online at: www.gsm.org.my/products/702001-101658-PDF.pdf)
(Discussion of diachronous opening of Tertiary marginal basins along E part of the Sundaland: (1) Proto S China Sea and S China Sea (with rifted off continental Palawan Block), (2) NW Sulu Sea, separated by Cagayan Arc; (3) late E Miocene Sulu Sea back-arc basin (W Mindanao and Sulu arc continental basement); (4) M Eocene Celebes Sea basin (N Arm of Sulawesi), Late Miocene N Banda Basin, Pliocene S Banda Basin. Basin closures started in E Miocene)

Pubellier, M., J. Ali & C. Monnier (2003)- Cenozoic plate interaction of the Australia and Philippine Sea Plates: "hit-and-run" tectonics. Tectonophysics 363, 3-4, p. 181-199.
(NW New Guinea at least two marginal basins, both formed in back-arc settings. Older basin opened between M Jurassic- E Cretaceous, a remnant of which is now preserved as New Guinea Ophiolite. Its obduction started at 40 Ma and finally emplaced on Australian margin at ~30 Ma. Younger basin active in Oligocene- M Miocene and obducted in E Pliocene. W edge of Philippine Sea also hitherto unexplained Oligocene deformation of Philippine arc. Extensive area of oceanic crust extended Australian Plate N of craton. As Australia began N-ward drift in E Eocene, this lithosphere was subducted. Thus, portion of Philippine Sea Plate carrying Taiwan-Philippine Arc to present site may have actually been in contact with ophiolite now in New Guinea and obduction led to deformation of Philippine Sea Plate. Neogene Plate kinematics transported deformed belt in contact with Sunda block in Late Miocene-Pliocene)

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(online at: www.geologie.ens.fr/~rooke/NCRpdf4web/Pubellier&al-2003.pdf)
(Nice set of Indonesia cross-sections and reconstructions at 2, 4, 6, 10, 15 and 20 Ma; part of DOTSEA project. Mamberamo Basin shown as Miocene back-arc basin above S-ward subducting Caroline Plate)

Pubellier, M. & F. Meresse (2013)- Phanerozoic growth of Asia; geodynamic processes and evolution. J. Asian Earth Sci. 72, p. 118-128.
(On mechanism of Tertiary accretion processes in SE Asia. Early stages illustrated in E Sunda arc where subduction of Sunda Trench is blocked in Sumba and Timor region, and flipped into Flores Trough. Another stage, where part of upper plate basin has disappeared is in Celebes Sea (and Makassar Basin?). Next stage is consumption of marginal basin where both margins collide and accretionary wedge is thrust over margin, as in NW Borneo and Palawan. These events predate arrival of conjugate margin of large ocean, which marks beginning of continental subduction as observed in Himalaya-Tibet region. Closure generally diachronous through time. Ophiolite obducted in such context generally of back-arc origin rather than relict of vanishing large ocean, which is rarely preserved)

Pubellier, M., C. Monnier, R. Maury & R. Tamayo (2004)- Plate kinematics, origin and tectonic emplacement of supra-subduction ophiolites in SE Asia. Tectonophysics 392, p. 9-36.
(Majority of SE Asia ophiolites originated in backarc or island arc settings along edge of Sunda (Eurasia) and Australian cratons, or within Philippine Sea Plate. Ophiolites accreted to continental margins during Tertiary. Relatively 'autochthonous ophiolites' resulted from shortening of marginal basins like S China Sea or Coral Sea, and 'highly displaced ophiolites' developed in oblique convergent margins. Some ophiolites in front of Sunda plate represent supra-subduction zone basins formed along Australian Craton margin in Mesozoic)

Pubellier, M. & C.K. Morley (2014)- The basins of Sundaland (SE Asia): evolution and boundary conditions: J. Marine Petroleum Geol. 58, B, p. 555-578.
(Major review of origin and evolution of Cenozoic basins of Sundaland. All basins in supra-subduction setting, but many different types, rift basins most widespread. Rift basin initiation is diachronous, with basins >45 Ma developing in E, and <45 Ma in C and N Sundaland, due to earlier onset of subduction rollback in Sulawesi-Celebes Sea area. Andean margin growth in NW Sundaland, Proto-South China Sea slab-pull and Andean margin collapse in NE Sundaland)

Pubellier, M., C. Rangin, X. Le Pichon and DOTSEA Working Group (2005)- DOTSEA Deep offshore tectonics of South East Asia: a synthesis of deep marine data in Southeast Asia. Mem. Soc. Geologique France, n.s., 176, p. 1-32. *(+ many maps and figures on CD).*
(SE Asia kinematic reconstructions back to 20 Ma, mainly driven by restoring plate motions from present-day GPS data. Rel. detailed maps and discussion of E Sunda margin (Philippines to N Sulawesi), S Sunda margin (Sumatra forearc) and S China Sea- Vietnam margin)

Pulunggono, A. (1976)- Tertiary carbonates distribution and oil potential in Indonesia. Proc. Carbonate Seminar Jakarta 1976, Indon. Petroleum Assoc. (IPA), Spec. Vol., p. 6-13.

Pulunggono, A. (1985)- The changing pattern of ideas on Sundaland within the last hundred years, its implications to oil exploration. Proc. 14th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 1, p. 347-378.
(History of Sundaland tectonic interpretations. Sundaland is mosaic of microplates, initially accreted in Late Triassic. Zone of weakness between rigid microplates in Sumatra locus of extensional tectonism, high heatflow and subsequent compression, which lead to optium conditions for generation and trapping of Tertiary oils)

Purnomo Prijosoesilo, Y. Sunarya & A. Wahab (1993)- Recent progress of geological investigations in Indonesia. J. Southeast Asian Earth Sci. 8, 1-4, p. 5-23.
(Generic overview of Indonesian mineral resources, hydrocarbons, geothermal prospects, etc.)

Puspito, N.T. & K. Shimazaki (1995)- Mantle structure and seismotectonics of the Sunda and Banda arcs. Tectonophysics 251, p. 215-228.
(Subducted slab morphology from tomography and seismicity of Sunda-Banda Arc suggests three zones: (1) W Sunda (Sumatra), with slab-like image penetrating to ~500 km below W Sunda arc, but no seismicity below 250 km; (2) E Sunda (Java-Flores), with seismic gap between 300-500 km, but slab continuous and penetrating into lower mantle ;and (3) Banda arc, with seismicity down to ~650 km, slab dips gently and does not penetrate into lower mantle. Along back-arc side of Sunda- Banda arcs heat flow decreases from W to E)

Puspito, N.T., Y. Yamanaka, T. Miyatake, K. Shimazaki & K. Hirahara (1993)- Three-dimensional P-wave velocity structure beneath the Indonesian region. Tectonophysics 220, p. 175-192.
(Early P-wave seismic tomography imaging study of Indonesian region)

Rangin, C. (1990)- South-East Asian marginal basins (South China Sea, Sulu and Celebes Seas): new data and interpretations. In: X. Jin et al. (eds.) Proc. Symposium Recent contributions to the geological history of the South China Sea, Hangzhou 1990, p. 38-51.
(online at: https://epic.awi.de/38705/2/south-china-sea_1990.pdf)
(Celebes and S China Seas rifted from Asian continental margin in Paleogene. Now completely subducted Proto-S China Sea probably same origin. Basins resulted partly from Indo-Asian collision and partly from slab-pull forces along Sunda Trench. Neogene collision of Banggai Sula Block with S margin of Celebes Sea in Sulawesi forced progressive closure of basins. Proto S China Sea was first to subduct below Cagayan Ridge in E Neogene, inducing opening of Sulu Sea and spreading reorganisation in S China Sea. Following collision of Cagayan Ridge with rifted margin of S China Sea in E Miocene, the Sulu Sea initiated subduction along Sulu Archipelago and Celebes Sea along N Sulawesi Trench. Paleogene was period of stretching of Eurasian margin and opening of marginal basins, in Neogene mainly progressive subduction of these oceanic basins)

Rangin, C. (1994)- Tectonics of Cenozoic sedimentary basins in SE Asia. In: F. Roure, N. Ellouz, S. Shein & I. Skvortsov (eds.) Int. Symposium Geodynamic evolution of sedimentary basins, Moscow, p. 351-367.

Rangin, C. (2015)- Coeval Oligocene- Miocene extension in East Andaman Basin/ North Sumatra region and in the South China Sea: geodynamic consequences and implications for hydrocarbon research. Presentation AAPG Workshop Tectonic evolution and sedimentation of South China Sea region, Kota Kinabalu 2015, AAPG Search and Discovery Art. 30408, 21p.
(online at: www.searchanddiscovery.com/documents/2015/30408rangin/ndx_rangin.pdf)
(Both West and East Sunda block margins affected by Late Eocene- E Miocene continental crust thinning just before E Neogene impingement of Philippine Mobile Belt and Indian Ridges. This extension was controlled by subduction retreat along Sumatra Java trench and its E extension in C Sulawesi. Early M Miocene (15 Ma) multiple collisions around S China Sea (Banggai Sula- E Sulawesi, Mindanao Zamboanga microcontinent-Philippine Mobile Belt, Mindoro Palawan- Philippine Mobile Belt, Luzon-Taiwan), causing end of spreading in Sulu and S China Seas)

Rangin, C., L. Jolivet, M. Pubellier and Tethys working group (1990)- A simple model for the tectonic evolution of Southeast Asia and Indonesia region for the past 43 m.y. Bull. Soc. Geologique France (8), 6, p. 889-905.
(Set of paleotectonic reconstructions since M Eocene (43 Ma), showing steps in convergence of Sundaland, Philippine Sea Plate and Australia-New Guinea plate)

Rangin, C., X. Le Pichon, S. Mazzotti, M. Pubellier, N. Chamot-Rooke, M. Aurelio, A. Walpersdorf & R. Quebral (1999)- Plate convergence measured by GPS across the Sundaland-Philippine Sea Plate deformed boundary (Philippines and eastern Indonesia). Geophysical J. Int. 139, p. 296-316.
(W boundary of Philippine Sea Plate (PH) wide deformation zone that includes stretched continental margin of Sundaland, Philippine Mobile Belt and continental blocks around PH-Australia-Sunda triple junction. 80% of PH-Sunda convergence absorbed in Molucca Sea double subduction system and <20% along continental margins of N Borneo. In triple junction between Sundaland, PH and Australia plates, from Sulawesi to Irian Jaya, preferential subduction of Celebes Sea induces CW rotation of Sulu block, which is escaping toward Celebes Sea from E-ward-advancing PH Plate. Undeformed Banda block rotates CCW with respect to Australia and CW with respect to Sundaland. Kinematics of this block enabled to compute rates of S-ward subduction of Banda block in Flores Trench and E-ward convergence of Makassar Straits with Banda block. Deformation compatible with E-ward motion of Sundaland with respect to Eurasia determined by GEODYSSEA, not with assumption that Sundaland belongs to Eurasia)

Rangin, C. & M. Pubellier (2000)- Late Cenozoic reconstructions in SE Asia; new GPS and tomographic constraints. AAPG Int. Conf. Bali 2000, 5p. *(extended abstract)*

Rangin, C., M. Pubellier, J. Azema, A. Briais, P. Chotin, H. Fontaine, P. Huchon, L. Jolivet, R. Maury, C. Muller, J.P. Rampnoux, J.F. Stephan, J. Tournon et al. (1990)- The quest for Tethys in the western Pacific; eight paleogeodynamic maps for Cenozoic time. Bull. Soc. Geologique France (8), 6, p. 907-913.
(Eight geodynamic reconstructions maps Early Tertiary- Present. 35 distinct crustal blocks distinguished. All marginal basins opened in Cenozoic, after complete closure of Tethys. Final Tethys suture traced from S Sumatra-C Java, Meratus Range in Borneo to W Philippines)

Rangin, C., M. Pubellier & L. Jolivet (1989)- Collision entre les marges de l'Eurasie et de l'Australie: un processus de fermeture des bassins marginaux du Sud-Est Asiatique. Comptes Rendus Academie Sciences, Paris 309, p. 1223-1229.
('Collision between the margins of Eurasia and Australia: a process of closing of marginal basins of SE Asia'. Convergence between Philippine Sea and Indo-Australian plates interpreted as E-M Miocene collision between two thinned continental margins with marginal basins floored by oceanic crust. This 'soft collision' initiated progressive subduction and closure of these basins and predate 'hypercollision' between Eurasia and Australia)

Rangin, C., W. Spakman, M. Pubellier & H. Bijwaard (1999)- Tomographic and geological constraints on subduction along the eastern Sundaland continental margin (South-East Asia). Bull. Soc. Geologique France 170, 6, p. 775-788.
(Tomographic model suggests rel. continuous active margin from Taiwan to Java before collision of Banda Block with Sundaland in M Miocene. N-dipping slab below Timor- Banda Arc reflects new subduction after this collision (12- 0 Ma). Shortening within Sunda Block accommodated by subduction of SE Asia marginal basins that opened in Paleogene. Closure of Sulu and Celebes basins is recent, whereas subduction of Proto-South China Sea marked by 300 km long slab below Borneo)

Ranneft, T.S.M. (1972)- The effects of continental drift on the petroleum geology of W Indonesia. Australian Petrol. Explor. Assoc. (APEA) J. 2, p. 55-63.

Richards, S., G. Lister & B. Kennett (2007)- A slab in depth: three-dimensional geometry and evolution of the Indo-Australian Plate. Geochem. Geophys. Geosystems 8, 12, Q12003, p. 1-11.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2007GC001657)
(3D image of subducted Indo-Australian plate below SE Asia and show geometry of subducted slab at depth is related to geometric evolution of SE Asia over past 50 Ma. Once semi-continuous subducting Indo-Australian plate segmented during collision between India, Australia and subduction margin to N. Complexities and evolution of subducted plate manifest in evolution of overriding plate)

Richter, B.W. (1996)- The Tertiary tectonic evolution of Southeast Asia; insights from paleomagnetism and plate reconstructions. Ph.D. Thesis, University of California, Santa Barbara, p. 1-247. *(Unpublished)*
(Paleomagnetic studies of parts of mainland SE Asia. Shan Plateau of Myanmar 33± 8° CW rotation relative to S China Block since M Cretaceous= 15.4 ± 5.4 ° CW rotation relative to Indochina Block. Peninsular Malaysia CCW declinations, similar to Borneo, Celebes Sea and Sulawesi, supporing hypothesis that much of Sundaland region rotated 35-40° CCW as rigid block since M Cretaceous. Java-Australia boundary probably passive margin until M Oligocene, so N-ward movement of Australia since Late Eocene initially pushed Borneo N-ward, driving CCW rotation of Borneo and Malaysia. Philippine Sea Plate rotating CW and moving NW through much of Tertiary, and arc fragments of this plate collided with Borneo through Tertiary)

Richter, B. & M. Fuller (1996)- Palaeomagnetism of the Sibumasu and Indochina blocks- implications for the extrusion tectonic model. In: R. Hall & D.J. Blundell (eds.) Tectonic evolution of Southeast Asia, Geol. Soc. London, Spec. Publ. 106, p. 203-224.
(Paleomagnetic data implications for extrusion tectonic model: (1) Sundaland only rotated 25-30° CW relative to S China during Tertiary; (2) SE-ward translation only 300-500 km; and (3) Sundaland composed of smaller

sub-blocks, some of which moved N. This indicates deformation of Sibumasu dominated by oblique Indian Ocean Plate subduction, while deformation of Indochina dominated by extrusion, driven by Indian Craton)

Richter, B., I. Norton, E. Schmidtke & M. Fuller (1992)- Paleomagnetic rotations from Southeast Asia- implications for tectonic reconstructions of Sundaland. In: M. Flower et al. (conv.) Southeast Asia structure, tectonics and magmatism, Texas A&M University Symposium, College Station 1992, 3p. *(Abstract only)*
(Paleomagnetic data from Thailand- E Myanmar suggest ~45° CW rotation since Cretaceous. Peninsular Malaysia, Borneo, SW Sulawesi and Celebes Sea mainly CCW declinations)

Ritsema, A.R. (1952)- Over diepe aardbevingen in de Indische Archipel. Ph.D. Thesis University of Utrecht, p. 1-132. *(Unpublished)*
('On deep earthquakes in the Indies Archipelago'. Study of 22 intermediate and deep earthquakes, only 2 with good data. No sweeping revelations)

Ritsema, A.R. (1953)- New seismicity maps of the Banda Sea. J. Scient. Res. Indonesia. 2, 2, p. 48-54.

Ritsema, A.R. (1953)- Some new data about earthquake movements at great depth in the Indonesian Archipelago. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 109, p. 34-40.
(In Indonesia shallow earthquakes widely distributed. Deeper earthquakes in narrower, rel. linear belts with deeper ones epicenters farther into Asian continent)

Ritsema, A.R. (1954)- The seismicity of the Sunda Arc in space and time. Indonesian J. Natural Science (Majalah Ilmu Alam untuk Indonesia) 110, p. 41-49.

Ritsema, A.R. (1956)- The seismicity of the Sunda Arc in space and time. Proc. 8th Pacific Science Congress 1953, 2a, p. 753-765.

Ritsema, A.R. (1957)- Earthquake-generating stress systems in SE Asia. Bull. Seismological Soc. America 47, 3, p. 267-278.
(Data from 28 earthquakes in SEAsia between 1934-1954 suggest earthquakes (1) at crustal-depth dominated by transcurrent movements; (2) at intermediate depths mainly reverse fault movements and (3) at deep levels mainly normal fault movements)

Ritsema, A.R. & J. Veldkamp (1960)- Fault plane mechanisms of Southeast Asian earthquakes. Meded. en Verhandelingen 76, Kon. Nederl. Meteorologisch Instituut, De Bilt, p. 1-63.
(online at: www.knmi.nl/bibliotheek/knmipubmetnummer/knmipub102-76.pdf)
(In SE Asia fault movement and earthquake-generating stresses associated with deep-seated earthquakes are located in essentially vertical plane, those of shallow earthquakes in essentially horizontal plane. Eight seismic zones of ~2000km length: (1) Sumatra- Sunda Strait (NNE-SSW horoizontal pressure), (2) Java- Timor and (3) N Sulawesi (N-S horizontal pressure), (4) Philippines, (5) Solomon Islands, (6) E New Guinea, (7) W New Guinea and (8) Moluccas)

Robertson Research/ Simon PT /PERTAMINA (1992)- Eastern Indonesia: biostratigraphy, geochemistry and petroleum geology. Multi-client study, p. *(Unpublished)*

Robertson Research Int. (1998)- Global play fairways and petroleum systems: Eastern Indonesia. Multi-client study, p. . *(Unpublished)*
(Comprehensive hydrocarbon systems study Eastern Indonesia)

Robertson Utama Indonesia/ Horizon (2001)- Eastern Indonesia palaeogeography and sequence stratigraphy studies. Multi-client study, p. 1-107 + Encl. *(Unpublished)*

Robertson/ Fugro (2006)- Cenozoic isopach of Southeast Asia. Multi-client study, 8p + map *(Unpublished)*

Rodnikova, R.D. (1986)- Geodynamics and petroleum formation in the sedimentary basins of Southeast Asia. Int. Geology Review 28, 4, p. 435-443.
(Russian point of view on 40+ sedimentary basins and petroleum content of Indo-Pacific region)

Royden, L.H. & L. Husson (2009)- Subduction with variations in slab buoyancy: models and application to the Banda and Apennine systems. In: S. Lallemand & F. Funiciello (eds.) Subduction zone geodynamics, Springer Verlag Berlin, p. 35-45.
(Variations in buoyancy of subducting lithosphere control subduction rate, slab dip and position of volcanic arc. More buoyant slab segments correlate with slower subduction rates and steeper slab dip. In Banda and S Apennine subduction systems subduction slowed and ended shortly after entry of continental lithosphere into trench. Time period of ~10 m.y. needed for model subduction rates to slow to near zero, longer than ~3 m.y. observed in Banda systems. Possible explanation is slab break-off or formation of large slab windows during the last stages of subduction allowing slab to steepen rapidly into final position)

Rutherford, K.J. & M.K. Qureshi (1981)- Geothermal gradient map of Southeast Asia, 2nd Edition. SE Asia Petroleum Expl. Soc. (SEAPEX) and Indon. Petroleum Assoc. (IPA), Jakarta, 51p.

Rutten, L.M.R. (1923)- Cuba, The Antilles and the Southern Moluccas. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 25, 7-8, p. 263-274.
(online at: www.dwc.knaw.nl/DL/publications/PU00014881.pdf)
(Similarities between the Antilles and Southern Moluccas islands chains already noted by Wichmann (1887), Martin (1890), etc. In both areas Mesozoic and Tertiary radiolarian deposits. No good maps, etc.)

Rutten, L.M.R. (1927)- Voordrachten over de geologie van Nederlandsch Oost-Indie. J.B. Wolters, Groningen, p. 1-839.
('Presentations on the geology of Netherlands East Indies'. Classic, comprehensive lecture series, summarizing 1927 state of knowledge of geology of Indonesia)

Rutten, L.M.R. (1932)- De geologie van Nederlands Indie. Van Stockum, The Hague, p. 1-216.
(‘The geology of Netherlands Indies’. Concise, early textbook on the geology of Indonesia)

Rutten, M.G. (1952)- Geosynclinal subsidence versus glacially controlled movements in Java and Sumatra. Geologie en Mijnbouw 14, 6, p. 201-220.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0S2czQkxZN3B5cE0/view)
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(‘The Cenozoic of Western Indonesia’)

Saita, T., D. Suetsugu, T. Ohtaki, H. Takenaka, K. Kanjo & I. Purwana (2002)- Transition zone thickness beneath Indonesia as inferred using the receiver function method for data from the JISNET regional broadband seismic network. Geophysical Research Letters 29, 7, 1115, p. 19/1-19/4.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2001GL013629/epdf)
(Seismicity-based study of variations in depths of 410km and 660km mantle discontinuities under Indonesia)

Salahudin, M. et al. (2007)- Map of sedimentary basins of Indonesia, 1:5 million. Geol. Survey Indonesia, Bandung.

Samuel, L., Purwoko, J. Purnomo, A.J. Bertagne & N.G. Smith (1994)- Results from interpretation of regional transects in Central Indonesia. Proc. 23rd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 4, p. 261-266.

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(Example of N-S megaregional seismic line from S of Lombok to East Borneo)

Samuel, L. & L. Gultom (1984)- Daur pengendapan dicekungan-cekungan minyak, Indonesia Barat. Geologi Indonesia (IAGI) 11, 1, p. 14-23.
('Sedimentation cycles in western Indonesian basins'. Four main sedimentary cycles in Eocene- Recent of Java, Sumatra, Kalimantan)

Sander, N.J., W.E. Humphrey & J.F. Mason (1975)- Tectonic framework of Southeast Asia and Australasia: its significance in the occurrence of petroleum. Proc. 9th World Petroleum Congress, Tokyo 1975, 9, 3, p. 83-105.

Sandiford, M. (2010)- Complex subduction. Nature Geoscience 3, p. 518-520.
(Mainly brief review of Spakman & Hall (2010) on how Banda arc is formed above single horseshoe-shaped subducted slab, reflecting slab rollback. Large intermediate-depth earthquakes may reflect rupturing of slab)

Sano, S., M. Untung & K. Fujii (1978)- Some gravity features of island arcs of Java and Japan and their tectonic implications. Geol. Survey Indonesia, Spec. Publ. 6, p. 183-207.

Sapiie, B., I. Gunawan, A. Rudyawan, A. Pamumpuni, A.H. Harsolumakso, C.I. Abdullah, A.H.P. Kusumadjana et al. (2017)- Development of new tectonic model and paleogeography as challenge for future hydrocarbon exploration of Eastern Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.

Sapiie, B. & M. Hadiana (2007)- Mechanism of some rift basins in the Western Indonesia. Proc. 31st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA07-G-138, 9p.
(Models for Paleogene rifting along W margin of Sundaland include purely extensional and strike slip fault control. Thermal anomalies in grabens parallel to subduction zone suggest back arc setting during rift phase, but other grabens not parallel to subduction zone. Different orientations suggest basins in W Indonesia developed by different tectonic system in Eocene-E Miocene. Sandbox modeling shows pre-existing basement structures fundamental control element on rifting)

Sartono, S. (1962)- The Banda geosyncline during Permian time: a palaeogeographic synthesis. Proc. (Madjalah) Inst. Teknologi Bandung 2, 4, p. 8-43.
(online at: http://citation.itb.ac.id/pdf/pdf/A6162/A61013.PDF)
(Presence of marine Permian rocks around Banda Sea on Savu, Roti, Timor, Leti, Luang and Babar (outer Banda Arc), E Sulawesi, Sula Spur, West Papua suggests existence of Banda geosyncline in Permian time. Banda geosyncline bordered land mass which included Sahul shelf. Trend of geosynclines follows present geanticlinal ridge of Outer Banda Arc islands. Distribution of Permian rocks and overthrust units in Timor suggests Permian geosyncline in SE Indonesia formed by two parallel basins, i.e. Sonnebait- Mutis in N (with neritic volcanic rocks of and Mutis overthrust units) and Kekneno basin in S)

Sartono, S. (1979)- Stratigrafi Indonesia. Dep. Teknik, Inst. Geol. Bandung (ITB), p.
('Stratigraphy of Indonesia. Course manual?)

Sartono, S. & S. Hadiwisastra (1988)- Comparison of post-Variscan tectonostratigraphic framework of Western and Eastern Indonesia. Proc. 17th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta,1, p. 447-459.
(Somewhat 'different' tectonics paper. Tectonostratigraphic reconstructions of Permo-Carboniferous to Quaternary rock formations in Sumatra and Timor indicate very similar geotectonic elements)

Sartono, S., S. Hadiwisastra & K.A.S. Astadiredja (1984)- Orogenesa intra-Miosen di Indonesia. Proc. 13th Ann. Conv. Indon. Assoc. Geol. (IAGI), p. 491-516.
('Intra-Miocene orogenesis in Indonesia')

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(Geotectonic Map of E and SE Asia. Sheet 4: Philippines, Vietnam, S China, Sheet 5: Malaysia, W Indonesia, Sheet 6: E Indonesia)

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(Geotectonic Map of E and SE Asia. Sheets 1,2 NE Asia, 3: S China, Indochina, Myanmar, Sheet 8: W Pacific Ocean)

Satyana, A.H. (2003)- Accretion and dispersion of Southeast Sundaland: the growing and slivering of a continent. Proc. 32nd Ann. Conv. Indon. Assoc. Geol. (IAGI) and 28th HAGI, Jakarta 2003, 31p.
(Sundaland made up of terranes or micro-plates from N Gondwanaland. SE Sundaland accreted crustal masses include oceanic Meratus, continental Paternoster, Ciletuh-Luk Ulo-Bayat subduction complex, Bantimala-Barru-Biru subduction complex, Flores Sea Islands, and continental Sumba Island. These crustal masses accreted to 'original' SE Sundaland (Schwaner Core) during 150-60 Ma (Late Jurassic- E Tertiary). Starting at ~50 Ma, in M Eocene, parts of SE Sundaland rifted and drifted E and SE-ward slivering continent. Dispersed masses include SW Sulawesi through opening of Makassar Strait, Flores Sea Islands, and Sumba. Slivering caused segmentation of E Java Sea basement to presently extend more E than should be)

Satyana, A.H. (2006)- Post-collisional tectonic escapes: fashioning the Cenozoic history. Proc. 35th Conv. Indon. Assoc. Geol. (IAGI), Pekanbaru 2006, PITIAGI2006-036, 27p.
(Five major collisional events fashioned Cenozoic tectonics of Indonesia, all with lateral escape features: (1) collision of India to Eurasia at 50 or 45 Ma (E-M Eocene), followed by escape of Sundaland SE-ward, formation of Sundaland sedimentary basins, opening of marginal seas of S China Sea, Andaman Sea; (2) 25 Ma (Late Oligocene) collision of oceanic island arc at S margin of Philippine Sea Plate collided with New Guinea; (3) collision of Bird's Head microcontinent with Papua at 10 Ma (Late Miocene) creating Lengguru foldbelt; (4) 11-5 Ma Buton-Tukang Besi and Banggai-Sula microcontinents collision with E Sulawesi ophiolite; (5) ~3 Ma N margin of Australian continent collision with Banda Island Arc)

Satyana, A.H. (2007)- Cekungan sedimen Indonesia 1949-2006: Perkembangan konsep dan status terkini. Majalah Geologi Indonesia (IAGI) 21, 1, p. 1-5.
('Sedimentary basins of Indonesia 1949-2006- The development of concepts and the current status')

Satyana, A.H. (2007)- Sumbangsih eksplorasi minyak dan gas bumi terhadap pengetahuan geologi Indonesia: data dan pandangan baru geodinamika Indonesia. In: Geologi Indonesia: dinamika dan produknya, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 33, 2, p. 1-26.
('Contributions of oil and gas exploration towards the knowledge of Indonesia geology and geodynamics'. Discussion of aspects of Indonesia tectonics and sedimentation, particularly E Kalimantan, Java, Makassar straits and Salawati Basin)

Satyana, A.H. (2009)- Finding remnants of the Tethys Oceans in Indonesia: sutures of the terranes amalgamation. Proc. 38th Ann. Conv. Indon. Assoc. Geol. (IAGI), Semarang 2009, 21p.
(Indonesia built by terranes rifted off Gondwana between Devonian and Paleogene. Three successive Tethyan oceans opened and closed, leaving five belts of sutures. Paleo-Tethys (Devonian opening, M-L Triassic closing): Karimun-Bangka suture off NE Sumatra, linking E Malaya and Sibumasu terranes, and Natuna-Belitung suture between SW Borneo and E Malaya terranes. Meso-Tethys (Jurassic opening, mid-Cretaceous closing): Takengon-Bandar Lampung, W Sumatra, between Sibumasu and Woyla terranes and Meratus-Bawean suture between SW Borneo/Schwaner and Paternoster-Kangean terranes. Ceno-Tethys suture is E Sulawesi Ophiolite Belt, marking suture between Banggai microcontinent and W Sulawesi terrane)

Satyana, A.H. (2009)- Finding remnants of the Tethys Oceans in Indonesia: sutures of the terranes amalgamation and petroleum implications. Proc. 34th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA10-G-153, 26p.
(Same paper as above)

Satyana, A.H. (2010)- Crustal structures of the Eastern Sundalandôs rifts, Central Indonesia: geophysical constraints and petroleum implications. Proc. HAGI-SEG Int. Geosci. Conf., Bali 2010, IGCE10-OP-108, Jurnal Geofisika, 10p.
(Discussion of M Eocene (~50Ma) and younger rift basins along E margin of Sundaland. Seimic sections across Makassar Straits, East Java Sea, Gorontalo and Bone Basins)

Satyana, A.H. (2010)- Gravity tectonics in Indonesia- a companion to plate tectonics: cases of isostatic exhumation and gravitational sliding. Proc. 39th Ann. Conv. Indon. Assoc. Geol. (IAGI), Lombok, PIT-IAGI-2010-205, 12p.
(At several areas in Indonesia geologic phenomena can not be explained by plate tectonics only. Uplifts in collision zones of Indonesia (Meratus (SE Kalimantan), Batui (E Sulawesi), Central Ranges of Papua, and Timor-Tanimbar uplifts may be caused by isostatic exhumation of once subducted microcontinents in collision zones. Compressional structures such as Samarinda Anticlinorium (E Kalimantan) and N Serayu fold-thrust belt (N C Java) may be related to gravitational gliding after hinterlands uplifts. Collision of microcontinents is by plate tectonics, but their subsequent uplifts of collisional through gravity tectonics)

Satyana, A.H. (2012)- Origins of the Banda Arcs collisional orogen and the Banda Sea. Berita Sedimentologi 23, p. 17-20.
(online at: www.iagi.or.id/fosi/files/2012/03/FOSI_BeritaSedimentologi_BS-23_March2012.pdf)
(Review of literature on the origin of the oceanic Banda Sea and Banda collisional zone)

Satyana, A.H. (2012)- Accretion and dispersion of Southeastern Sundaland: the growing and slivering of continent and petroleum implications. AAPG Int. Conv. Exh., Singapore 2012, Search and Discovery Art. 30261, 39p. *(Abstract + Presentation)*
(www.searchanddiscovery.com/documents/2012/30261satyana/ndx_satyana.pdf)
(Sundaland made up of terranes from N Gondwanaland, which rifted, drifted, and amalgamated in Late Paleozoic- Mesozoic. A number of SE Sundaland crustal masses accreted to original SE Sundaland (Schwaner Core) in 150-60 Ma. Starting at ~50 Ma (M Eocene), some of accreted mass of SE Sundaland rifted and drifted apart (SW Sulawesi, Flores Sea Islands, Sumba), due to transtension rifting related to tectonic escape of India-Eurasia collision and/or back-arc spreading by rollback of slower subduction, resulting in opening of Makassar Straits and Bone Basins, segmentation of E Java Basement and slivering of Sumba terrane)

Satyana, A.H. (2013)- Gravity tectonics in Indonesia: petroleum implications. Proc. 37th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA13-G-161, p. 1-14.
(Examples of gravity tectonics (compressional structures not requiring tectonic shortening) in Indonesia: (1) Meratus Uplift, SE Kalimantan, (2) Samarinda Anticlinorium (E Kalimantan), (3) growth faults and toe thrusts in Tarakan offshore and N Makassar Basins, and (4) N Serayu Anticlinorium, C Java (reminescent of Van Bemmelen's 'undation theory'; JTvG))

Satyana, A.H. (2014)- New consideration on the Cretaceous subduction zone of Ciletuh- Luk Ulo- Bayat-Meratus: implications for southeast Sundaland petroleum geology. Proc. 38th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA14-G-129, p. 1-41.
(Cretaceous subduction under SE Sundaland more complex than previously considered. Subduction ceased in Bantimala and Meratus trenches in mid-Cretaceous due to docking of W Sulawesi and Paternoster-Kangean microcontinents, respectively. Late Cretaceous subduction migrated to Paternoster trench resulting in volcanic and magmatic rocks as well as forearc sediments in Meratus and Bantimala. Subduction in Ciletuh and Luk Ulo continued into Late Cretaceous. Bayat area may not be subduction continuation of Luk Ulo due to absence of subduction zone rock assemblages. Presence of NW Australian-derived microcontinents (W Sulawesi, Paternoster-Kangean, SE Java) opens petroleum possibilities in pre-Tertiary deposits)

Satyana, A.H. (2014)- Tectonic evolution of Cretaceous convergence of Southeast Sundaland: a new synthesis and its implications on petroleum geology. Proc. 43rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 28p.
(SE Sundaland recorded subduction of oceanic plate in Jurassic- Late Cretaceous (Meratus, Bantimala, Luk Ulo, Ciletuh). Subduction ceased in Bantimala and Meratus trenches in mid-Cretaceous due to docking of W

Sulawesi and Paternoster-Kangean microcontinents. In Late Cretaceous, subduction migrated to Paternoster trench, resulting in volcanic- magmatic rocks and forearc sediments in Meratus and Bantimala. In Paleogene Meratus and Bantimala separated by opening of Makassar Straits. Subduction in Luk Ulo and Ciletuh trenches continued into Late Cretaceous (but no Late Cretaceous subduction-related metamorphic rocks). Jiwo Hills, Bayat, not subduction zone, but part of SE Java Microcontinent that docked in E Cretaceous)

Satyana, A.H. (2018)- Contribution of post-2000's petroleum exploration in Indonesia to some issues of tectonics: solutions to problems, new knowledge, and hydrocarbon implications. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-591-G, 23p.
(Recent petroleum exploration contributed to solving debates on tectonics of Indonesia: (1) N Makassar Straits opening mechanism and nature of basement (extended continental crust from interpretation of volcanic geochemistry in well), (2) origin of Sumba micro-continent (rifted block from Sulawesi), (3) basement of Cendrawasih Bay (Pacific Plate oceanic/ arc volcanic crust). Some issues now better defined: (4) forearc areas of Sumatra- W Java (with Paleogene rift structures), and (5) foredeep areas of Seram-Tanimbar-Timor troughs (foredeeps, not subduction troughs). New knowledge of tectonics: (6) presence of Late Paleozoic-Mesozoic sections of Gondwanan micro-continents in East Java and S Makassar Straits (from interpretation of seismic and geochemical data), and (7) multiple rifts/terranes of Gorontalo Basin (from seismic interpretation))

Satyana, A.H., C. Armandita & R.L. Tarigan (2008)- Collision and post-collision tectonics in Indonesia: roles for basin formation and petroleum systems. Proc. 32nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA08-G-140, 18p.
(Collision following subduction and accretion of buoyant crustal masses and post-collision tectonics significant for basin formation and resultant petroleum systems. Examples of collisions important for petroleum geology: (1) Meratus (SE Kalimantan), (2) Buton and Banggai (E Sulawesi), (3) Seram, (4) Timor-Tanimbar, (5) Lengguru (Birds Head of Papua) and (6) Central Range of Papua)

Satyana, A.H., R.L. Tarigan & C. Armandita (2007)- Collisional orogens in Indonesia: origin, anatomy, and nature of deformation. Proc. Joint Conv. 36th IAGI, 32nd HAGI, and 29th IATMI, Bali 2007, p. 1-64.
(Extensive review of Indonesia collisional orogens: (1) Meratus: collision of Schwaner continental core with Paternoster micro-continent, (2) Sulawesi: collision of Banggai-Sula microcontinent and E Sulawesi Ophiolite, (3) Molucca Sea: collision of accretionary wedges of Sangihe and Halmahera arc-trench systems, (4) Seram: collision of Seram/N Banda arc and Bird's Head micro-continent, (5) Lengguru: collision between Bird's Head of N margin of Australian continent, (6) Papua Central Range: collision of island arc to S of Philippine Sea plate and N margin of Australian continent, and (7) Timor-Tanimbar: collision of Australian continent and Timor-Tanimbar/ S Banda arc)

Schneider, C.F.A. (1876)- Geologische Uebersicht uber den hollandisch-ostindischen Archipel. Jahrbuch kon. kaiserl. Geol. Reichsanstalt 26, 2, p. 113-134.
(online at: www.geologie.ac.at/filestore/download/JB0262_113_A.pdf)
('Geological overview of the Dutch East Indies archipelago'. One of earliest reviews of Indonesia geology and useful minerals by German Dr. Schneider)

Schoffel, H. & S. Das (1999)- Fine details of the Wadati-Benioff zone under Indonesia and its geodynamic implications. J. Geophysical Research 104, B6, p. 13101-13114.
(Relocated earthquakes hypocenters show (1) portion of Indonesian arc between ~110°E- 123°E and >500 km deep, dips S at ~75° angle, direction opposite to upper part of N dipping slab, and (2) E of ~108 °E seismic zone wider near 670km than near 500 km depth. The first suggests S-ward lateral flow in mantle, relative to plate motion vector. From contortion of seismic zone along E portion of arc, average lateral shear strain rate in 300-670 km depth range is ~10-16s-1 over last 10-20 Myr)

Schuppli, H.M. (1946)- Geology of oil basins in the East Indian archipelago. American Assoc. Petrol. Geol. (AAPG) Bull. 30, 1, p. 1-22.

Schwartz, M.O., S.S. Rajah, A.K. Askury, P. Putthapiban & S. Djaswadi (1995)- The Southeast Asian tin belt. Earth-Science Reviews 38, p. 95-290.

(N-S trending SE Asian tin belt 2800 km long/ 400 km wide, from Myanmar- Thailand to Malay Peninsula and Indonesian Tin Islands Bangka- Belitung. Five granitoid provinces: (1) Main Range in W Malay Peninsula, S Peninsular Thailand and C Thailand (184-230 Ma; almost entirely biotite granite, 55% of tin production); (2) Northern Province of N Thailand (200-269 Ma; 0.1% of tin production, also mainly biotite granite); (3) Eastern Province of E Peninsular Malaysia- E Thailand (Malaysian part subdivided into E Coast Belt (220-263 Ma), Boundary Range Belt (197-257 Ma) and Central Belt (79-219 Ma; wide compositional range; tin deposits only in biotite granite in E Coast Belt) (3% of production); (4) Western Province in N Peninsular and W Thailand and Burma (22-149 Ma; biotite granite, 14% of tin production); (5) Granitoids of Indonesian Tin Islands (193-251 Ma) do not permit grouping into above units; most tin deposits associated with Main Range-like plutons))

Scotese, C.R., L.M. Gagahan & R.L. Larson (1988)- Plate tectonic reconstructions of the Cretaceous and Cenozoic ocean basins. Tectonophysics 155, p. 27-48.

(Nine global reconstructions of ocean basins and continental plates for E Cretaceous- Pleistocene times. Late Cretaceous and Early Tertiary plate reorganizations in Indian Ocean e result of progressive subduction of intra-Tethyan rift/ spreading system)

Setiawan, N.I. (2013)- Metamorphic evolution of Central Indonesia. Ph.D Thesis, Kyushu University, p. 1-318.
(Unpublished)
(Study of metamorphic complexes of S Sulawesi, Kalimantan, C Java)

Setiawan, N.I., S. Husein & M.F. Alfyan (2014)- Speculative models of exhumation of High-Pressure Low-Temperature metamorphic rocks from central part of Indonesia: an implementation of concepts and processes. Proc. Seminar National Kebumian 7, Universitas Gadjah Mada, Yogyakarta 2014, P3O-02, p. 504-523.
(online at: https://repository.ugm.ac.id/135217/1/504-523%20P3O-02.pdf)
(Published exhumation models of high-P/low-T metamorphic rocks in subduction zones suggest buoyancy is only effective force to exhume rocks from deeply subducted levels to base of crust. Serpentinites are extremely buoyant and may facilitate exhumation. Requires rapid uplift and cooling to maintain high-P minerals in rocks. Presence of melange units intercalated with high-P metamorphics and chaotic occurrence of different metamorphic facies typically in subduction channel environment)

Setiawan, N.I., Y. Osanai & M.I. Khalif (2016)- U-Pb detrital zircon geochronology of metamorphic rocks from South Kalimantan, South Sulawesi, and Central Java, Indonesia: related metamorphism and tectonic implications in Central Indonesia region. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 289-292.

(High P metamorphics from Meratus in SE Kalimantan, Bantimala in S Sulawesi and Luk Ulo in C Java generally tied to NW-directed Cretaceous subduction. Zircons show no metamorphic rims and therefore viewed as detrital grains and provenance ages of metamorphic rock protoliths. Youngest detrital zircon ages in Bantimala- Meratus ~199-194 Ma, in Luk Ulo ~100 Ma. Ages from Bantimala glaucophane-quartz schist ~430-199 Ma (Silurian- E Jurassic), Barru garnet schist ~1930, 1730, 1600-1400 Ma, 1050 Ma (Proterozoic), and 550-280 Ma (Cambrian-Permian); Meratus epidote-barroisite schist 232 ± 39 Ma (Late Triassic; range 296-194 Ma); Luk Ulo gneiss mainly 127-100 Ma (E Cretaceous; also older)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, Y. Tatsuro, K. Yonemura, A. Yoshimoto, J. Wahyudiono & K. Mamma (2013)- An overview of metamorphic geology from central Indonesia: importance of South Sulawesi, Central Java and South-West Kalimantan metamorphic terranes. Bull. Graduate School Social and Cultural Studies, Kyushu University 19, p. 39-55.
(online at: https://qir.kyushu-u.ac.jp/dspace/bitstream/2324/26209/1/p039.pdf)
(Study of metamorphic complexes at Bantimala and Barru (S Sulawesi; High P), Luk Ulo (C Java; High P; pelitic schist, eclogite, blueschist), Meratus (S Kalimantan) and Nangapinoh area of Schwaner Mountains (W Kalimantan). Metamorphic rocks from S Sulawesi, C Java and S Kalimantan E Cretaceous ages (~110-130 Ma) and possibly derived from single subduction complex. Metamorphic rocks in Schwaner Mountains are metatonalite, with U-Pb zircon ages suggesting Late Triassic magmatic ages (~233 Ma), i.e. older than most

Schwaner Mts granitoids (Late Jurassic-Cretaceous), but within range of NW Kalimantan granitoids (Carboniferous- Triassic; 204-320 Ma))

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, K. Yonemura, A. Yoshimoto, L.D. Setiadji, K. Mamma & J. Wahyudiono (2014)- Geochemical characteristic of metamorphic rocks from South Sulawesi, Central Java, South and West Kalimantan in Indonesia. ASEAN Engineering J., C, 3, 2, p. 1-21.
(online at: www.seed-net.org/download/GeoE013_revised_060513.pdf)
(Metamorphic complexes as products of Cretaceous subduction outcrop in C Java, S Kalimantan and S Sulawesi. Mainly high-pressure metamorphic rocks from metabasic and sedimentary protoliths. Metabasic rocks from S Sulawesi and C Java basalts with both MORB and within-plate signatures. Metatonalites from Schwaner Mountains calc-alkaline arc volcanics; adakitic metatonalite age of 233± 3 Ma (Late Triassic))

Setijadji, L.D. (2010)- Cretaceous subduction zones in Indonesia: paleogeography, arc granitoid plutonism and metallic mineralizations. Proc. IGCP 507 Project Symp. Paleoclimates in Asia during the Cretaceous, Yogyakarta 2010, p. 59-60. *(Abstract only)*
(Two or three separate Cretaceous subduction zones in W Indonesia, with oceanic crust subducting under Eurasia plate (1) M-Lt Cretaceous Sumatra-Meratus arc, E and N- facing subduction, 2000 km long, with granitoid plutonism from W Sumatra (Sikuleh, Manunggal, Ulai, Garba and Sulan granites; 120-75 Ma), N of Java, to Meratus Mountains of SE Kalimantan; (2) S-facing subduction at NW Kalimantan, resulting in two granitoid plutonic arcs, i.e. late E Cretaceous Schwaner Arc and Late Cretaceous Sunda Shelf Arc. Both are parallel in E-W direction, ~1500 km long, in W-C Kalimantan, with Late K arc south of Early K arc. Cretaceous arc granitoid plutonism very different from Triassic granitoids of Bangka- Belitung)

Seubert, B.W. (2015)- Volcaniclastic petroleum-systems- theory and examples from Indonesia. Proc. 39th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA15-G-026, 19p.
(Potential volcaniclastic reservoirs present in Indonesia across range of stratigraphic intervals, but underexplored. Presence of volcanic material may enhance preservation and of organic matter and maturation of hydrocarbons. Porosity prediction still problematic. Examples of volcaniclastic reseroirs in Indonesia: Bengkulu, W, C and E Java, S Sulawesi, etc.)

Sevastjanova, I. & R. Hall (2011)- Detrital zircon from the Banda Arc: insights into the palaeogeographic reconstructions. In: Conf. Sediment provenance studies in hydrocarbon exploration & production, Geol. Soc., London, 2011, p. 27-28. *(Abstract only)*
(Zircon U-Pb ages from Karimunjawa Arch (SW Borneo Block) similar to those from Seram, suggesting similar source areas. Mesoproterozoic zircons in Karimunjawa Arch uncommon on Cathaysian Blocks, providing evidence against Cathaysian affinity for SW Borneo Block. Triassic zircons abundant in Karimunjawa Arch. Zircons suggest existence of local Permian-Triassic zircon source in E Indonesia and/or on Australia NW Shelf)

Sevastjanova, I., R. Hall & S. Zimmermann (2012)- Detrital zircon provenance and insights into palaeogeographic reconstructions of the Banda Arc. In: 1st Congr. Int. Geologia de Timor-Leste, Dili 2012, Abstract book, p. 103-105. *(Abstract only)*

Shaw, R.D. (1990)- Frontier basins of Southeast Asia: a review of their hydrocarbon potential. In: 8th Offshore SE Asia Conf., Singapore 1990, Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) 9, OSEA 90176, p. 69-80.
(70% of SE Asian basins frontier basins with no significant hydrocarbon production, but contain estimated 22% of recoverable oil reserves. Basins in regions of oceanic-continent convergence (N Australia, Sunda margin) more prospective than areas of oceanic plates convergence)

Shaw, R.D. & G.H. Packham (1992)- The tectonic setting of sedimentary basins of Eastern Indonesia: implications for hydrocarbon prospectivity. Australian Petrol. Explor. Assoc. (APEA) J. 32, 1, p. 195-213.

Shaw, R.D. & G.H. Packham (1992)- Heatflow trends in Southeast Asia: implications for petroleum prospectivity. In: 9th SEAPEX Offshore Southeast Asia Conf. (OFFSEA 92), Singapore 1992, Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) 10, OSEA 92243, p. 130-144.

(75% of SE Asia oil reserves in basins with contemporary heatflow of 2 HFU or more)

Shulgin, A. (2012)- Subduction zone segmentation along the Sunda margin. Doct. Thesis Christian-Albrechts-Universitat, Kiel, p. 1-128.
(online at: http://d-nb.info/1023870339/34)
(Mainly collection of five papers on Java-Sumatra forearc regions. Geophysical models show significant variations of crustal and upper mantle structure of Sunda Arc subduction complex along-strike and across-strike of margin. Increased thickness of crystalline crust in Savu Sea attributed to approach of Australian shelf to trench. Offshore Lombok oceanic crust thickness 7 km thick and heavily fractured by normal faults. Crustal structure of Roo Rise oceanic plateau revealing crustal thickness of 15km, its subduction causing deformation of forearc and complex evolution of subduction processes)

Sigit, S. & T.H.F. Klompe (1962)- I. A brief outline of the geology of the Indonesian Archipelago. II. Geological Map of Indonesia, scale 1:5,000,000, p. 1-18.
(Brief summary of Indonesia geology, with schematic structural map and 1:5m geologic map)

Simandjuntak, T.O. (1988)- An outline of tectonic development of the Indonesian archipelago and its bearing on occurrence of energy resources. In: Symposium on Tectonics and energy resources in East Asia, WGMM-CCOP, Tsukuba, Japan, p.

Simandjuntak, T.O. (1992)- Tectonic development of the Indonesian archipelago and its bearing on the occurrence of energy resources. Indonesia. J. Geologi Sumberdaya Mineral 2, 9, p. 2-23.
(Review of Indonesian tectonics and relation to hydrocarbons, coal, geothermal potential. Indonesia triple junction convergence since Neogene. Pre-Neogene tectonics (1) Paleozoic- Mesozoic_Paleogene convergence in W Indonesia; (2) Mesozoic- Paleogene divergence in E Indonesia, producing allochthonous terranes in E Indonesia. Permian convergence recorded by Permian andesitic volcanics, similar to rocks present in W Kalimantan and E Main Range of Malay Peninsula. Similarities between E Indonesian microcontinents include Permo-Carboniferous metamorphics, Permo-Triassic plutonics, overlain by Mesozoic passive margin seqeunce, E Cretaceous mostly missing, Late Cretaceous radiolarian calcilutites and Tertiary platform carbonates, etc.;generally regarded as derived from New Guinea. No plate reconstructions)

Simandjuntak, T.O. (1992)- Review of tectonic evolution of Central Indonesia. J. Geologi Sumberdaya Mineral 2, 15, p. 2-18.
(C Indonesia nine tectonic provinces or belts: (1) W Sulawesi Magmatic Arc (Late Cretaceous- Paleogene flysch and arc volcanics and some probably Cretaceous granitoids); (2) C Sulawesi Metamorphic Belt (tightly folded schist, incl. blueschist, N-S fold axes, probably Late Cretaceous metamorphism); (3) E Sulawesi Ophiolite Belt (>1000km long belt from E Arm Sulawesi to Kabaena and Buton in SE, possibly up to 15km thick; in places with deformed Late Cretaceous radiolarian chert, K-Ar ages of ophiolite ~93-37 Ma; E Miocene obduction?); (4) Banda Micro-continents (Banggai-Sula, Seram-Buru platform, Misool-Birds Head, etc., terranes of Paleozoic metamorphic basement with Permo-Triassic granitic plutons, overlain by Late Triassic sediments, E Jurassic hiatus, M-L Jurassic passive margin sediment, etc.; originated from N Papuan margin); (5) Banda Sea floor (Cretaceous?)/ Sulawesi Sea floor (Eocene), (6) N Maluku Basin and Talaud-Tifore Ridge; (7) Minahasa- Sangihe Volcanic Arc; (8) W Halmahera Province (Tertiary Arc volcanics) and (9) E Halmahera Province (ophiolites of poorly known age))

Simandjuntak, T.O. (1993)- Neogene tectonics and orogenesis of Indonesia. In: G.H. Teh (ed.) Proc. Symp. Tectonic framework and energy resources of the western margin of the Pacific Basin, Kuala Lumpur 1992, Bull. Geol. Soc. Malaysia 33, p. 43-64.
(online at: www.gsm.org.my/products/702001-101022-PDF.pdf)
(Indonesian Archipelago developed during Neogene convergence of 3 megaplates, Eurasian craton, Pacific plate and Australian craton. Five major crustal elements, 4 orogenic belts: Sunda orogeny, (2) Banda orogeny, (3) Melanesian orogeny, (4) Talaud orogeny. 'Transitional Complex': between 3 major plates composed of 17 disctinct units: E Sulawesi, Banggai-Sula, Timor-Tanimbar, Misool-Birds Head, etc.)

Simandjuntak, T.O. (1993)- Neogene tectonics and orogenesis of Indonesia. J. Geologi Sumberdaya Mineral 3, 20, p. 2-32.
(Similar to other Simandjuntak (1993) above)

Simandjuntak, T.O. (1994)- Tectonic evolution of Central Indonesia. In: J.L. Rau (ed.) Proc. 29th Sess. Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, 2, p. 91-113.
(Central Indonesia is triple junction of Indo-Australian, Pacific and Eurasian plate convergence. Seven tectonostratigraphic provices, various episodes of convergence and divergence. Reconstructions show Banda Microcontinent (which subsequently breaks up into Banggai-Sula, Tukang-Besi, Seram-Buru, Misool-Birds Head, etc.) attached to Papua New Guinea part of Australian continent in Triassic-Jurassic time (similar to Pigram, Struckmeyer reconstructions, but not Hall and others))

Simandjuntak, T.O. (1994)- Neogene orogeny and mountain building in Indonesia. In: J.L. Rau (ed.) Proc. 30th Sess. Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bali 1993, 2, p. 47-86.
(Neogene tectonics of Indonesia marked by five different orogenic belts, Barisan, Sunda, Banda, Talaud and Melanesian)

Simandjuntak, T.O. (1998)- Tsunamis in active plate margins of Indonesia. Proc. 33rd Sess. Coord. Comm. Coastal and Offshore Programmes E and SE Asia (CCOP), Shanghai 1996, 2, p. 334-361.
(Overview of active tectonics across Indonesia and relation to tsunamis. Tsunamis triggered by earthquakes below seafloor, most of them over graben-like structures in areas of extensional tectonics, but transtensional zones also have tsunami potential)

Simandjuntak, T.O. (2000)- Geotectonic of Indonesia: the birth of the Indonesian Archipelago. J. Geologi Sumberdaya Mineral 10, 104, p. 8-21.
(Tectonic development of Indonesia initiated by collision in Sumatra and Kalimantan in E Triassic of Paleozoic microcontinents detached from Gondwana, followed by reccurring subduction systems until today. In Sumatra 3 terrnanes: (1) SE part of Sibumasu Terrane (Mergui, Tigapuluh Mts and Kuantan- Duabelas Mts); (2) SE end of Lhasa- W Burma Terrane (Woyla, Sikuleh, Natal and Asai-Garba Terranes); (3) SE-most Malaysia Terrain (Gunungkasih-Lingga-Singkep). W Kalimantan and Meratus also parts of S-most China- Indochina terranes. Irian Jaya and PNG part of N Australian continental margin, which rifted in Triassic, followed by development of passive margin in Jurassic- Cretaceous and carbonate platform in Paleogene. At end-Paleogene promontory of Australian continent collided with oceanic island arc at S margin of Philippine Sea Plate. Prior to Neogene emplacement of allochthonous microcontinents from N margin of Australia in Banda Sea, E Indonesia was part of N Indian Ocean and S Philippine Sea plates, in which a number of oceanic island arcs formed in Paleogene. Six Neogene orogenic belts in Indonesian region. No reconstruction maps (refers to map of 1999 Indonesian-Japanese Geotectonics Working Group; Sato et al.))

Simandjuntak, T.O. (2000)- Neogene tectonics of Indonesia. AAPG Int. Conf. Exhib., American Assoc. Petrol. Geol. (AAPG) Bull. 84, 9, p. 1492. *(Abstract only)*
(Seven distinctive Neogene orogenies in Indonesia: 1) Sunda Orogeny in Java and E Indonesia: normal convergence producing Andean type orogenic belt, 2) Barisan Orogeny: oblique convergence and dextral transpressional wrenching in Sumatra, 3) Talaud Orogeny in N Maluku Sea: double-arc collision with sinistral transpressional wrenching, 5) Banda Orogeny: M Miocene collision between Banggai-Sula, Tukangbesi- Buton and Mekongga Platform against E Sulawesi ophiolite belt; 6) Melanesian Orogeny in Irian Jaya and PNG: oblique convergence with thin-skinned tectonics, 7) Dayak Orogeny in Kalimantan: triple junction extensional tectonics with hot spots of Neogene volcanics)

Simandjuntak, T.O. (2003)- The Indonesian active margins. J. Geologi Sumberdaya Mineral 13, 136, p. 2-24.
(Discussion of young collisional and strike-slip belts of Indonesia)

Simandjuntak, T.O. & A.J. Barber (1996)- Contrasting tectonic styles in the Neogene orogenic belts of Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geol. Soc. London, Spec. Publ. 106, p. 185-201.
(Six separate Neogene orogenic belts: Sunda (W Java-Flores), Barisan, Talaud, Sulawesi, Banda (Timor-Tanimbar) and Melanesian (New Guinea))

Simatupang, M. (1988)- Indonesian mineral development digest: a sourcebook on mining and mineral development in Indonesia. Indonesian Mining Association, Jakarta, p. 1-565.

Simons, W.J.F., B.A.C. Ambrosius, R. Noomen, D. Angermann, P. Wilson, M. Becker, E. Reinhart, A. Walpersdorf & C. Vigny (1999)- The final geodetic results of the GEODYSSEA project: the combined solution. In: The GEODYnamics of S and SE Asia (GEODYSSEA), Project. GeoForschungsZentrum, Potzdam, (STR 98/14), p. 27-38.

Simons, W.J.F., B.A.C. Ambrosius, R. Noomen, D. Angermann et al. (1999)- Observing plate tectonics in SE Asia: geodetic results of the GEODYSSEA project. Geophysical Research Letters 26, p. 2081-2084.
(Geodetic results of GEODYSSEA Project 1994-1996 GPS data)

Simons, W., B. Ambrosius, C. Vigny, A. Socquet, C. Subarya et al. (2003)- Crustal motion and block behaviour in S.E. Asia: a decade of GPS measurements. EGS-AGU-EUG Joint Assembly, Nice 2003, Abstract 10940.
(SE Asia region was observed with 45 GPS site 'GEODYSSEA project (1991-1998). Additional GPS sites have set-up since 2000. High-quality GPS data set, spanning almost decade, combined into a kinematic model, with 100+ station motions in ITRF-2000. Highlights are relative motion and boundaries of Sundaland block. In Sulawesi, two micro-blocks confirmed and number of sites on E Malaysia, indicate small but consistent relative motion with respect to Sundaland block)

Simons, W.J.F., A. Socquet, C. Vigny, B.A.C. Ambrosius, S. Haji Abu, C. Promthong, C. Subarya, D.A. Sarsito, S. Matheussen, P. Morgan & W. Spakman (2007)- A decade of GPS in Southeast Asia: resolving Sundaland motion and boundaries. J. Geophysical Research 112, B06420, p. 1-20.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005JB003868)
(GPS velocity field of SE Asia based on 10 years (1994-2004) of GPS data at more than 100 sites in Indonesia, Malaysia, Thailand, Myanmar, the Philippines, and Vietnam. Sundaland moves E at ~6 mm/yr in S to 10 mm/yr in N. Sundaland moves independently with respect to S China, E Java, Sulawesi and N tip of Borneo. Slow W-ward movement of N tip of Borneo relative to Sundaland absorbed at NW Borneo Trench. Red River fault still active. Sundaland deformation occurs along its boundaries with fast-moving neighboring plates)

Situmorang, B. (1977)- The western Indonesia fault pattern: tectonic significance with relation to wrench tectonics. Lemigas Scientific Contr. 1, 2, p. 5-18
(Four compression phases in W Indonesia since pre M Mesozoic: (1) N80°- 260E pre- M Mesozoic equatorial compression; (2) N158- 338E M Mesozoic meridional compression; (3) N2- 182E late Cretaceous- E Tertiary meridional compression, and (4) N174- 35E Plio-Pleistocene compression. Bantam trend three fault systems of different ages: M-Mesozoic left lateral strike-slip faults in C and S Sumatra, late Cretaceous- E Tertiary right lateral strike-slip faults in Sunda Strait and on Java, and Plio-Pleistocene left lateral strike-slip faults in Sumatra. M Mesozoic and late Cretaceous- E Tertiary compression responsible for creation of basic basin configuration in C and S Sumatra, W Java and W Java Sea areas. En echelon folds forming hydrocarbon bearing anticlines in Sumatra and Java related to Plio-Pleistocene compression)

Situmorang, B. (1986)- Notes on the Pre-Tertiary petroleum potential of Eastern Indonesia. Lemigas Scientific Contr. 10, 2, p. 16-23.
(online at: www.journal.lemigas.esdm.go.id/index.php/SCOG/article/view/70)
(Thick late Paleozoic-Mesozoic rift-drift facies formed excellent hydrocarbon plays in NW Australia and potential prospects extend into microcontinental blocks of E Indonesia)

Situmorang, B. (1987)- Pre Tertiary petroleum potential of Eastern Indonesia. Proc. 23rd Sess. Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Madang 1986, 2, p. 72-79.
(E Indonesia prospective hydrocarbon plays in Pre-Tertiary, mainly in microcontinental blocks of Australian origin and associated Pre-Tertiary rift basins)

Situmorang, B. (ed.) (1989)- Proceedings Sixth Regional Conference on the geology, mineral and hydrocarbon resources of Southeast Asia (GEOSEA VI), Jakarta 1987. Indon. Assoc. Geologists (IAGI), Jakarta, p. 1-504.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_2/1987/7...)

Situmorang, B., Siswoyo, M. Thamrin & B. Yulianto (1983)- Heatflow variation in Western Indonesian basinal areas: implication on basin formation and hydrocarbon potential. Proc. 12th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 1, p. 157-169.
(Average heat flow in Tertiary Basins of W Indonesia ~1.95- 2.58 μ Cal/cm2 s, except in C Sumatra where heat flow is ~3.27 ± 0.9 μ Cal/cm2 s. Less variability of heat flow in Java than in Sumatra basins. Lowest variability in S Sumatra, largest in C Sumatra. Variability probably reflects variation in amount of extension)

Situmorang, M. (1994)- Distribution and characteristics of detrital heavy minerals in Eastern Indonesian waters. In: J.L. Rau (ed.) Proc. 29th Sess. Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Hanoi 1992, Bangkok, 2, p. 231-251.
(Heavy minerals in seafloor sediments aaround Banda Arc region mainly mafic volcanic and sedimentary minerals, with some metamorphic minerals. Principal minerals hyperstene, augite, zircon, tourmaline, enstatite, garnet, chlorite and hornblende)

SKK Migas (2017)- Petroleum systems of the Eastern Indonesia region- Guidance for hydrocarbon exploration in Eastern Indonesia. SKK Migas Memoir 1, Jakarta, p. 1-489.

Sladen, C. (1997)- Exploring the lake basins of East and Southeast Asia. In: A.J. Fraser et al. (eds.) Petroleum geology of Southeast Asia, Geol. Soc. London, Spec. Publ. 126, p. 49-76.
(SE Asia contains large number of lake basins producing significant amounts of oil and gas: Late Mesozoic-Early Tertiary basins of China, Early Tertiary basins of Malaysia- West Indonesia. Wax content commonly 10-35% in oils derived from lacustrine source-rocks, occasionally reaching 45%. Source rock petroleum generators dominated by Botryoccocus and Pediastrum green algae)

Slancova, A., A. Spicak, V. Hanus & J. Vanek (2000)- How the state of stress varies in the Wadati-Benioff zone: indications from focal mechanisms in the Wadati-Benioff zone beneath Sumatra and Java. Geophysical J. Int. 143, p. 909-930.
(Earthquake focal mechanisms define eight stress domains: 3 in Sumatra (SI-SIII), 5 in Java region (JI-JV). Domains with similar states of stress occur in both regions in similar positions. Maximum compression perpendicular to trench in SI, SII and JII (depth range 0-165 km). Orientation of max. compression almost parallel to trench in SIII and JIII (depth 25-225 km). Focal mechanisms of domains SII, SIII, and JII, JIII different stress layers and overlap of earthquakes with different focal mechanisms from two different stress-state layers, parallel to Wadati-Benioff zone. Slab-dip-parallel extension observed in JIV (depth 225-315 km), slab-dip-parallel compression in JV (>400 km))

Smit Sibinga, G.L. (1926)- De geologische bouw van het Euraziatisch grensgebied. Handelingen 4e Nederl.-Indie Natuurwetenschappelijk Congres, Weltevreden 1926, p. 440- .
('The geological structure of the Eurasian border area')

Smit Sibinga, G.L. (1927)- Wegener's theorie en het ontstaan van den Oostelijken O.I. Archipel. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 44, p. 581-598.
(Discussion on merits of Wegener's continental drift theory (1912) in the Indonesian archipelago. Considers basic idea of horizontal movements of continents and associated polar wandering as valid. As did Molengraaff, SS struggles with origin of the configuration of the 'circum-synclinal Banda basin'. Remarkable conclusion: 'Various reasons to believe 'the Lesser Sunda islands, Sulawesi and the Moluccas are originally marginal

chains of Sundaland, from which they separated and developed their present position and character as result of collision with the Australian continent'. No figures)

Smit Sibinga, G.L. (1928)- De geologische ligging der Boven-Triadische olie- en asfaltafzettingen in de Molukken. Natuurkundig Tijdschrift Nederlandsch-Indie 58, p. 111-121.
('The geological setting of the Upper Triassic oil and asphalt deposits in the Moluccas'. Triassic oil and asphalt deposits in Moluccas in similar facies on Timor, Ceram, Buru, Buton and SE Sulawesi. Formed at edge of Mesozoic Sundaland craton. No figures)

Smit Sibinga, G.L. (1933)- The Malay double (triple) orogen, I. Proc. Kon. Akademie Wetenschappen, Amsterdam, 36, 2, p. 202-210.
(online at: www.dwc.knaw.nl/DL/publications/PU00016394.pdf)
(Discussion of orogenetic belts of Indonesia: Sunda Orogen, Molucca Orogen, Pelew orogen. One of early authors suggesting current geotectonic structure of the Indonesian region is result of N-ward movement of Australian continent (similar to Wegener suggestion; now commonly accepted, but rejected by Van Bemmelen 1933 and others), etc.' JTvG))

Smit Sibinga, G.L. (1933)- The Malay double (triple) orogen, II. Proc. Kon. Akademie Wetenschappen, Amsterdam, 36, 3, p. 323-330.
(online at: www.dwc.knaw.nl/DL/publications/PU00016411.pdf)
(Discussion of 'Australian double orogen' in New Guinea, etc. No figures)

Smit Sibinga, G.L. (1933)- The Malay double (triple) orogen, III. Proc. Kon. Akademie Wetenschappen, Amsterdam, 36, 4, p. 447-453.
(online at: www.dwc.knaw.nl/DL/publications/PU00016429.pdf)
(East Indian Archipelago consists of double, partly triple orogen between Asiatic and Australian continental masses. Molucca-orogen shows larger negative gravity anomalies than Sunda-orogen)

Smit Sibinga, G.L. (1935)- Geologie en zwaartekracht in den Indischen Archipel. Critische beschouwing over eenige recente publicaties van Prof. Dr. J.H.F. Umbgrove. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 52, p. 581-598.
('Geology and gravity in the Indies Archipelago; a critical review of some recent publications on Indonesia region Neogene by Umbgrove'. Discussion of timing of Old Tertiary (Te4?), M Miocene (Tf2?) and Plio-Pleistocene (underappreciated by Umbgrove 1932, 1935) folding events)

Smit Sibinga, G.L. (1937)- On the relation between deep-focus earthquakes, gravity and morphology in the Netherlands East Indies. Gerlands Beitrage Geophysik, Leipzig, 51, 4, p. 402-409.
(On zones of deep earthquakes that dip towards SE Asia mainland, recently identified by Berlage (now known as Wadati-Benioff zone), with apparent irregularies in Molucca Sea, etc.. Asiatic and Australian deep-focus earthquake hypocenter planes down to 700km, both with increasing focal depth towards continent, may be regarded as deep-seated fault- or thrust planes. Remarkable coincidence between morphological discrepancies, excssive negative gravity anomalies and active bathyseismic belt suggest intimate relationships and consequently great youth of these phenomena. With two maps)

Smit Sibinga, G.L. (1938)- Additional note on the relation between deep-focus earthquakes, gravity and morphology in the Netherlands East Indies. Gerlands Beitrage Geophysik, Leipzig, 53, 4, p. 392-394.
(Reply to Visser (1938) critique of Smit Sibinga (1937) conclusions. New hypocenter data from Gutenberg and Richter support earlier conclusion))

Smit Sibinga, G.L. (1939)- The Malay Archipelago in Pre-Tertiary times. Proc. Sixth Pacific Science Congress, San Francisco 1939, p. 231-240.
(Review of pre-Tertiary stratigraphy of Indonesia, from crystalline schists of pre-Paleozoic or E Paleozoic age through Silurian and Devonian, Carboniferous, Permian, Triassic, Jurassic, and Cretaceous, with observations on tectonics and paleogeography)

Smit Sibinga, G.L. (1940)- Der Malayische Archipel. Geologische Jahresberichte (Borntraeger, Berlin) II, B, p. 393-416.
('The Malay Archipelago'. Part 1 of review of geology of Indonesian region)

Smit Sibinga, G.L. (1942)- Der Malayische Archipel. Geologische Jahresberichte (Borntraeger, Berlin) IV, B, p. 362-382.
(('The Malay Archipelago'. Continuation of paper above. Brief reviews of geology of Timor, Mesozoic stratigraphy, etc. No new synthesis)

Smit Sibinga, G.L. & L.F. de Beaufort (1925)- Over het ontstaan van den Maleischen Archipel. Verslagen Geol. Sectie Geol. Mijnbouwk. Gen. 3, 4, p. 64- .
(Summary of lecture on tectonics of Indonesian region, incorporating zoogeographic data)

Smith, N.G., A.J. Bertagne, L.Samuel, Purwoko et al. (1995)- Eastern Indonesia Megaregional Project- principles and results of a regional study. AAPG Ann. Conv. Abstracts, American Assoc. Petrol. Geol. (AAPG) Bull. 79, 6, p. 912. *(Abstract only)*

Sobari, I., A. Susilo, Subagio & E. Mirnanda (1993)- Bouguer anomaly map of Indonesia, scale 1:5M. Geol. Res. Dev. Centre (GRDC), Bandung, p. .

Soeria-Atmadja, R., R.C. Maury, H. Bellon, J.L. Joron, Y. Cyrille, H. Bougault & Hasanuddin (1986)- The occurrence of back-arc basalts in western Indonesia. Proc. 14th Ann. Conv. Indon. Assoc. Geol. (IAGI), p. 125-132.

Soeria-Atmadja, R., H. Permana & A. Kadarusman (2005)- High-pressure metamorphics and associated peridotite in Eastern Indonesia. Majalah Geologi Indonesia (IAGI) 20, 2, Spec. Ed., p. 61-67.
(Association of high-pressure metamorphic rocks and ophiolites in E Indonesia, SE Kalimantan and Java)

Soesilo, J. (2012)- New Cretaceous tectonic setting of southeast Sundaland based on metamorphic evolution. Ph.D. Thesis, Inst. Teknologi Bandung (ITB), p. 1-224. *(Unpublished*
(Soesilo et al. 2015: Includes new U-Pb dating of zircons in high-metamorphic rocks of Meratus (136.8 ± 3.6 and Luk Ulo (125-101 Ma))

Soesilo, J., V. Schenk, E. Suparka & C.I. Abdullah (2015)- The Mesozoic tectonic setting of SE Sundaland based on metamorphic evolution. Proc. 39th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA15-G-205, 13p.
(SE Sundaland marked by two tectonic sutures, separated by Paternoster microcontinent: (1) Jurassic accretionary remnant W of micro-continent (S Meratus Suture, with metamorphic belt extending offshore beneath Java Sea and N-ward to Mangkalihat Peninsula or to W part of C Sulawesi. Part of Jurassic high-P belt, overprinted by lower P and thermal metamorphism, in response to crustal thickening due to collision of Paternoster against Sundaland in E Cretaceous and subsequent Cretaceous calc-alkaline magmatism; (2) mid-Cretaceous accretionary complex E of Paternoster micro-continent, extending from Karangsambung, C Java, to Bantimala-Latimojong-Pompangeo in Sulawesi (HP metamorphic rocks ages ~100-128 Ma))

Sopaheluwakan, J. (1994)- Tectonic evolution of the Banda Arc, East Indonesia: Southern Tethyan crust obduction metamorphism and fragmentation of eastern Gondwanaland. Proc. 30th Anniv. Symposium, Res. Dev. Centre for Geotechnology (LIPI), Bandung 1994, 2, p. 157-162.
(online at: elib.pdii.lipi.go.id/katalog/index.php/searchkatalog/.../1194.pdf)
(Studies of metamorphic aureoles at base of dismembered ophiolites on Timor, Seram, etc., suggest ophiolite obduction is major mechanism for emplacement of southern Tethyan crust onto Australian continental margin)

Sopaheluwakan, J. (1994)- Critiques and a new perspective on basement tectonic studies in Indonesia: a review of current results and their significance in geological exploration. Proc. 30th Anniv. Symposium, R&D Centre for Geotechnology (Puslitbang Geoteknologi) LIPI, Bandung 1994, 2, p. 163-175.
(online at: elib.pdii.lipi.go.id/katalog/index.php/searchkatalog/.../1195.pdf)
(Not all metamorphic rocks in Indonesia are of pre-Tertiary age and of continental origin. Places like Timor and Seram have very young metamorphic rocks, formed during ophiolite obduction. Mutis Complex of Timor formed in oceanic setting near Jurassic spreading center)

Sopaheluwakan, J. (1995)- Cenozoic tectonic evolution of Indonesian seaways. In: S. Nishimura & R. Tsuchi (eds.) Proc. Oji Seminar on Neogene evolution of Pacific Ocean Gateways, Kyoto, IGCP-355, p. ?

Sopaheluwakan, J. (1999)- Understanding the Indonesian orogeny: a basement geology perspective. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 19. (*Abstract)*
(Indonesia three types of orogeny: (1) Sunda type, Late Mesozoic Cordilleran-type Meratus-Karangsambung orogen along rim of SE Sundaland and Neogene orogeny. Suspected collision of microcontinent in Meratus-Karangsambung orogen. (2) Makassar type, outboard of Meratus-Karangsambung orogen, Oligocene and Miocene orogenies as result of obduction events of E Arm of Sulawesi and docking of Australian-derived microcontinents onto Sulawesi; (3) Banda type, with repeated pre-collisional obductions of short-lived spreading ridges in front of Australian passive margins in Oligocene and Miocene)

Sopaheluwakan, J. (2007)- Geodinamika Indonesia dan keberlangsungan hidup Manusia: dari ilmu kebumian ke ilmu-ilmu sistem kebumian. In: Geologi Indonesia: dinamika dan produknya, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 33, 1, p. 1-27.
('Indonesian geodynamics and human survival: from geography to the sciences of the earth system'. Three major tectonic theories for Indonesia: (1) undation theory, (2) plate tectonics and more recently (3) plume tectonics becoming fashionable)

Spakman, W. & H. Bijwaard (1998)- Mantle structure and large-scale dynamics of South-East Asia. In: P. Wilson & G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project. Sci. Techn. Report STR/14, Geoforschungszentrum, Potsdam, Germany, p. 313-339.
(Tomographic results general agreement with previous findings (e.g. subduction of Indian plate below Sunda Arc), but do not find detachment of (or tear in) slab around 400 km below Sumatra. Sunda slab bends W toward Andaman island arc below N Sumatra. Subduction below Sunda arc imaged down to 1500km, indicating penetration into lower mantle. Subduction below Sulawesi is S extension of Philippines subduction. Slab also imaged below Halmahera (Molucca collision zone))

Spakman, W. & R. Hall (2010)- Surface deformation and slab-mantle interaction during Banda arc subduction rollback. Nature Geoscience 3, p. 562-566.
(with supplementary material, movie at http://searg.rhul.ac.uk/current_research/plate_tectonics/index.html)
(Tomography velocity model of mantle under suggests Banda arc results from subduction of single slab. Jurassic embayment of dense oceanic lithosphere enclosed by continental crust once existed within Australian plate. Banda subduction began at ~15 Ma when active Java subduction tore E-ward into embayment. Present morphology of subducting slab only partially controlled by shape of embayment. As Australian plate moved N, Banda oceanic slab rolled back towards SSE. Increasing resistance of mantle to plate motion folded slab and caused strong deformation of crust)

Spakman, W., C. Rangin & H. Bijwaard (1998)- Tomographic constraints on the tectonic evolution of SE Asia. In: AAPG Int. Conf. Exhib, American Assoc. Petrol. Geol. (AAPG) Bull. 84, 9, p. 1495. *(Abstract only)*
(New 3D image of P-wave seismic velocity heterogeneity of lithosphere and mantle of SE Asia. Subducted oceanic slab found below most of Sunda arc but with varying depth penetration. A 500 km long slab under Burma separated from Andaman-Sumatra slab (~700 km deep) by 300-400 km wide gap associated with Andaman Basin. Central Sunda slab penetrates lower mantle to 1500 km, but subduction below Banda arc confined to 700 km. No clear slab imaged below W New Guinea; long N dipping slab under E New Guinea)

Spicak, A., R. Matejkova & J. Vanek (2013)- Seismic response to recent tectonic processes in the Banda Arc region. J. Asian Earth Sci. 64, p. 1-13.
(Analysis of shallow (<100 km) seismological data. 11 domains of earthquakes identified. Two discrete recent subduction zones in region: N- dipping Banda subduction in S and S-dipping Seram subduction in N; no W-dipping subduction zone observed to interconnect Banda and Seram zones into a single bent subduction zone. Instead, area between them is cut by elongated domain of earthquakes corresponding to W-ward continuation of Tarera-Aiduna fault zone)

Stauffer, H.K. (1945)- The geology of the Netherlands Indies. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies, New York, p. 320-335.
(Old, general overview of Indonesia geology)

Steinshouer, D.W., J. Qiang, P.J. McCabe & R.T. Ryder (1999)- Maps showing geology, oil and gas fields, and geologic provinces of the Asia-Pacific region. U.S. Geol. Survey (USGS) Open- File Report 97-479F, 13p.
(Online at: https://pubs.usgs.gov/of/1997/ofr-97-470/OF97-470F/aspac.PDF)
(Report with three 1:7.5 M scale maps of geology, geologic provinces and oil-gas fields: 1 The Far East, 2 Southeast Asia, 3 Australia and New Zealand)

Stille, H. (1920)- Die angebliche junge Vorwartsbewegung im Timor- Ceram Bogen. Nachrichten Kon. Gesellschaft Wissenschaften Gottingen, Mathem.-Phys. Klasse, p. 174-180.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN002505746)
(‘The supposed young forward movements in the Timor- Ceram arc’. Discussion of Brouwer (1917 and 1920) papers, questioning the importance of horizontal movements. Not much new, no figures)

Stille, H. (1943)- Malaiischer Archipel und Alpen. Abhandl. Preussischen Akademie Wissenschaften, Math.-naturw. Klasse, Berlin, 16p.
('The Malay Archipelago and Alps'. Comparison of Indonesian region tectonics and Alps)

Stille, H. (1945)- Die tektonische Entwicklung der hinterindischen Festlands- und Inselgebiete. In: H. Stille & F. Lotze (eds.) Die tektonische Entwicklung der pazifischen Randgebiete II, Geotektonische Forschungen 7/8, Borntraeger, Berlin, p. 34-153.
('The tectonic development of the SE Asian mainland and island areas'. Review of geology and tectonic development of Indonesian region, in chapter 3 of textbook on tectonic developments of Circum-Pacific regions (p. 67-122). Interpretations in framework of Stille's famous but outdated ideas of geosynclines and continental growth during 'Variscan', Cimmeride', 'Laramide', etc. orogenic cycles)

Stille, H. (1945)- Die tektonische Entwicklung der neoaustralischen Inselwelt. In: H. Stille & F. Lotze (eds.) Die tektonische Entwicklung der pazifischen Randgebiete II, Geotektonische Forschungen 7/8, Borntraeger, Berlin, p. 210-260.
('The tectonic development of the Neo-Australian island world'. Chapter 5 of textbook on tectonic developments of Circum-Pacific regions)

Storetvedt, K.M., L.S. Leong & M. Adib (2003)- New structural framework for SE Asia, and its implications for the tectonic evolution of Borneo. Bull. Geol. Soc. Malaysia 47, p. 7-26.
(online at: www.gsm.org.my/products/702001-100611-PDF.pdf)
(Unconventional ‘Global Wrench Tectonics’ model for SE Asia tectonics, particularly NW Borneo margin)

Storetvedt, K.M. & B. Longhinos (2014)- Australasia within the setting of global wrench tectonics. NCGT Journal 2, 1, p. 66-96.
(online at: www.ncgt.org/)
(Another unconventional SE Asia tectonic paper from ‘Global Wrench Tectonics’ school)

Subarya, C. (2004)- The maintenance of Indonesia geodetic control network- in the earth deforming zones. In: 3rd Int. Fed. Surveyors (FIG) Regional Conference, Jakarta 2004, TS8, 6p.
(online at: www.fig.net/pub/jakarta/papers/ts_08/ts_08_1_subarya.pdf)
(On increase of GPS geodetic measurements in Indonesia since 1992 and velocities across plate boundaries)

Subono, S. & Siswoyo (1995)- Thermal studies of Indonesian oil basins. In: Y. Togashi (ed.) Symposium on Heat flow map, geodynamic implications and maturity modelling for hydrocarbons, Comm. Co-ord. Joint Prospecting Mineral Resources in Asian Offshore Areas (CCOP), Bangkok, 25, p. 37-53.

Sudarmono, T. Suherman & B. Eza (1997)- Paleogene basin development in Sundaland and it's role to the petroleum systems in Western Indonesia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conf. Petroleum Systems of SE Asia and Australasia, Indon. Petroleum Assoc. (IPA), Jakarta 1997, p. 545-560.

Sudradjat, A., H.D. Tjia et al. (eds.) (1989)- J.A. Katili Commemorative Volume (60 years). Geologi Indonesia 12, 1, p. 1-635.
(19 papers in English, 5 in Indonesian, mostly on tectonic history and volcanism)

Suggate, S. & R. Hall (2003)- Predicting sediment yields from SE Asia: a GIS approach. Proc. 29th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA03-G-015, 16p.
(Areas of Indonesia like New Guinea, Borneo, Sumatra, etc., produce very high volumes of sediments relative to size of its landmasses. Possibly tied to intense precipitation/ runoff and many areas of recent rapid uplift)

Sukamto, R., T.C. Amin & D. Sukarna (eds.) (2003)- Atlas geologi dan potensi sumberdaya mineral dan energi kawasan Indonesia, scale 1: 10,000,000. Geol. Res. Development Centre, Bandung, p. 1-39.
('Atlas of geology and potential of minerals and energy in Indonesia'. Atlas with 33 Indonesia-wide maps of regional geology, volcanic rocks, radiometric ages, gravity, carbonates, ophiolites, Pre-Tertiary rocks, earthquakes, mineral resources, energy resources, etc.)

Sukamto, R. & M.M. Purbo-Hadiwidjoyo (1997)- Regional geology of Indonesia. In: E.M. Moores & R.W. Fairbridge (eds.) Encyclopedia of European and Asian regional geology, Chapman and Hall, London, p. 376-384.

Sukamto, R., B. Setyogroho, S. Atmawinata, S. Aziz, B. Jamal, Suharsono & S. Andi-Mangga (1990)- The Jurassic rocks in Indonesia. Bull. Geol. Res. Dev. Centre (GRDC), Bandung, 14, p. 1-14.
(Overview of the 17 regions in Indonesia with Jurassic rocks in outcrop, mainly in E Indonesia, also in Kalimantan and Sumatra)

Sukamto, R. & Sidarto (1990)- Gagasan baru tentang asal berbagai mintakat geologi di Indonesia. Bull. Geol. Res. Dev. Centre 14, p. 59-72. *(also in Proc. 16th Ann. Mtg. IAGI, Bandung 1987)*
('New thoughts on the origin of geological terranes in Indonesia'. Brief overview of terranes)

Sukamto, R. & T. Suhanda (1977)- Some notes on magmatic activities and metallic mineral occurrences in northeastern Indonesia. Bull. Geol. Soc. Malaysia 9, p. 253-271.
(online at: www.gsm.org.my/products/702001-101288-PDF.pdf)
(Permian-Recent volcanic and non-volcanic arcs in NE Indonesia different types of metallic mineral belts)

Sukamto, R. & G.E.G. Westermann (1992)- Indonesia and Papua New Guinea. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, Cambridge University Press, p. 181-193.
(Summary of Jurassic stratigraphy and ammonites in Irian Jaya, Waigeo, Misool, Obi, Bangai-Sula, SE and S Sulawesi, Buton, Buru, Seram, Tanimbar-Babar, Timor-Roti, Kalimantan, Sumatra and PNG)

Sunarjanto, D., B. Wicaksono, Sriwijaya, S. Munadi & B. Wiyanto (2008)- Updating of Indonesian Tertiary basin sedimentary basins. Proc. 32nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA08-G-163, 12p.

(LEMIGAS (2007) basins map lists 63 Tertiary sedimentary basins in Indonesia. Example of use of gravity data in S Kalimantan to determine basin outlines: propose to combine Pembuang and Barito basins)

Surjono, S.S. & H.D.K. Wijayanti (2012)- Tectono-stratigraphic framework of Eastern Indonesia and its implication to petroleum systems. ASEAN Engineering J., C 1, 1, p. 138-152.
(online at: www.seed-net.org/download/C1-1_Paper10.pdf)
(Brief review of East Indonesia tectonics and stratigraphy, and geology of Tanimbar Islands)

Susilo, I. Meilano, H.Z. Abidin & B. Sapiie (2015)- A new definition of Sunda Block rotation model. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-373, 3p.
(GPS observations from 1996-2013 suggest Sunda block (Indochina, Thailand, Peninsular Malaysia, Sumatra, Borneo, Java) moves ESE-ward at 26-32 mm/yr)

Susilo, I. Meilano, H.Z. Abidin, B. Sapiie, J. Efendi & A.B. Wijanarto (2016)- Preliminary result of Indonesian strain map based on geodetic measurements. Proc. 5th Int. Symposium on Earth hazard and disaster mitigation, AIP Conference Proc. 1730, 040004, 3p. *(Extended Abstract)*
(GPS measurements from 1993-2014 across Indonesia region provide 2-3mm-level precision of surface velocity estimates. GPS velocities used here to construct a crustal strain rate map. Highest strain rates along Sumatran fault, Sumatra-Java trench, North Molucca Sea and Seram- northern West Papua areas)

Suzuki, Y. (1993)- On the formation of Southeast Asia island arcs. Hokuriku Geol. Inst. Rept. 3, p. 107-123.

Syracuse, E.M. & G.A. Abers (2006)- Global compilation of variations in slab depth beneath arc volcanoes and implications. Geochem. Geophys. Geosystems 7, 5, Q05017, p. 1-18.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005GC001045)
(Depth to top of subducting slab below volcanoes 72- 173 km, global average 105 km. Depths correlate poorly with most subduction parameters, but correlations exist between depth and slab dip. Largest along-strike variation in Java, where depth shifts by 70 km on either side of 108° E from 90 km in W Java- SE Sumatra to 150 km in Central and East Java, changing over ~150 km along strike. Jump at overlapping of ends of two volcanic lines. Dominant change is shift in location of volcanoes in relation to slab and trench. E of 119° E (W Banda Sea), volcanoes step back toward trench, and slab depths once again become near 100 km. Not clear what causes this shift)

Tandon, K.A. (1998)- Study of models and controls for basin formation during continental collision: (1) Australian lithosphere along Banda Orogen (Indonesia) and (2) Alboran Sea Basin (Western Mediterranean). Ph.D. Thesis Louisiana State University, Baton Rouge, p. 1-197.
(online at: http://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=7792&context=gradschool_disstheses)

Tandon, K., J.M. Lorenzo & G.W. O'Brien (2000)- Effective elastic thickness of the northern continental lithosphere subducting beneath the Banda orogen (Indonesia): inelastic failure at the start of continental subduction. Tectonophysics 329, p. 39-60.
(Pliocene-Recent Australian continent- arc collision from Roti to Kai created underfilled foreland basin in Timor-Tanimbar-Aru Trough. Collision most advanced near C Timor. Australian continental lithosphere N of Timor detached from oceanic lithosphere. Change in Effective Elastic Thickness (EET) at start of continental subduction at Mio- Pliocene boundary due to change in curvature of N Australian lithosphere near shelf-slope, in map and cross-section. Evidence for inelastic yielding of N Australian continental lithosphere near present-day shelf-slope at continental subduction: (1) maximum change of EET near shelf-slope in laterally variable EET calculations, and (2) cessation of most normal faulting in Late Miocene- E Pliocene on seismic)

Tandon, K., J.M. Lorenzo, S. Widiyantoro & G.W. O'Brien (2002)- Variations in inelastic failure of subducting continental lithosphere and tectonic development: Australia-Banda Arc convergence. In: S. Stein & J.T. Freymueller (eds.) Plate boundary zones, American Geophys. Union (AGU), Geodynamics Series 30, p. 341-357.
(online at: http://www.geol.lsu.edu/jlorenzo/literature/Juan/papers_pdf/Tandonetal_AGU.pdf)

(Effective Elastic Thickness map at incipient continental collision (Pliocene-Recent) along N Australian continental lithosphere along Banda orogen suggests more rigid N Australian lithosphere indenting between 125-127°E longitude. Sharp decrease in EET from 230-180 km on continental shelf (from Roti to W of Aru Island) down to ~40 km on continental slope and beneath Banda orogen favoring inelasticf ailure at start of continental subduction)

Taylor, D. & T.M. van Leeuwen (1980)- Porphyry-type deposits in Southeast Asia. In: S. Ishihara, & S. Takenouchi (eds.) Granitic magmatism and related mineralization, Tokyo, Mining Geology, Spec. Issue 8, p. 95-116.
(14 porphyry copper or molybdenum deposits known from SE Asia outside Philippines; Sabah (Mamut), N and W Sulawesi (Tapadaa, Tombuililado, Sassak, Malala), Sumatra (Tangse + 4 non-economic; all associated with C Sumatra Fault Zone, Thailand (2; Triassic?)) and C Burma (Monywa). All except Thailand of Miocene and younger ages. Sabah and Sulawesi occurrences underlain by oceanic crust, similar to Philippines)

Thamrin, M. (1985)- An investigation of the relationship between the geology of Indonesian sedimentary basins and heat flow density. Tectonophysics 121, 1, p. 45-62.
(Geothermal data from 929 wells in 20 Tertiary basins. Thermal conductivity increases with depth of burial and compaction. T gradient controlled by depth and T of heat source beneath basin. High heat-flow densities in C Sumatra, S Sumatra, Salawati Basin and Bintuni Basin may be caused by shallow magmatic diapirism)

Thamrin, M. (1985)- Heat flow study in the oil basinal areas in Indonesia. CCOP Techn. Publ. TP 15, p. 435-444.

Thamrin, M. (1986)- Terrestrial heat flow map of Indonesian Basins. Indonesian Petroleum Assoc. (IPA), Jakarta, p. 33-70.

Thamrin, M. & P.H. Mey (1987)- Terrestrial heat flow map of Indonesian Basins. Indon. Petroleum Assoc. (IPA), Jakarta, p. 1-70.

Thamrin, M., Prayitno & Siswoyo (1984)- Heat flow study in the oil basinal areas in Indonesia. Proc. Joint ASCOPE/ CCOP Workshops I and II, p. 49-60.

Thurow, J. & J. Milsom & D. Roques (2000)- Mesozoic tectono-sedimentary evolution of the Banda Arc area. AAPG Int. Conf., American Assoc. Petrol. Geol. (AAPG) Bull. 84, 9, p. 1505-1506.
(Abstract only. Mesozoic on Buru, Buton, Seram, E Sulawesi and plateaus off NW Australian Shelf. Pre-collision sediments record complicated rift-drift-history from higher latitudes at NW Australian margin and include source and reservoir rocks (e.g. Triassic sandstone and platform carbonates/ black shales), some with oil, oil seeps, asphalt. Sediments represent rifting off NW Australia. Widespread condensed oceanic sediments with Late Jurassic macrofossils overlie them. This sequence may be preceded by basaltic volcanic phase. E Cretaceous sediments pelagic with abundant radiolaria. Late Cretaceous 'couches rouges' facies rich in calcareous plankton. First Eurasian microfauna in Maastrichtian, indicating beginning of collision. Mesozoic pelagic microfaunas of NW-Australia typical Austral affinities (high latitude); those from Banda Arc mixed Austral-Tethyan elements, deposited in subtropical environment)

Tjia, H.D. (1968)- New evidence of recent diastrophism in East Indonesia. Inst. Technology Bandung, Contrib. Dept. Geology 69, p. 71-76.

Tjia, H.D. (1970)- Rates of diastrophic movement during the Quaternary in Indonesia. Geologie en Mijnbouw 49, 4, p. 335-338.
(https://drive.google.com/file/d/0B7j8bPm9Cse0MWZtWTJsb0ZnT1U/view)
(In mobile regions of Indonesia average rate of Quaternary uplift, with or without attendant folding, 0.5- 1.0 mm/yr (common coral reefs uplifted to 500-1000m on Outer Arc islands like Sumba, Timor, Babar, Kai, Seram; also E Sulawesi, Buton, etc.). Subsidence occurs at rates of 2.0 mm/yr. Diastrophic movements in continental areas much slower. Wrench faulting most rapid movements, with rates of strike-slip of 5 mm/yr or more)

Tjia, H.D. (1973)- Displacement patterns of strike-slip faults in Malaysia- Indonesia- Philippines. Geologie en Mijnbouw 52, 1, p. 21-30.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0Yjl3aHFCa0w1cE0/view)
(Field studies on 7 important strike-slip faults in Malay Peninsula, Sarawak, W Sumatra, W Java, C Sulawesi New Guinea and Seram, using fault-plane markings to determine the sense of displacement. Directions of regional compression, parallel to computed compressive stress directions. Directions of regional compression are 10°-190° (Sumatra and Java) and ~E-W for Philippines and islands E of Makassar Straits)

Tjia, H.D. (1978)- Active faults in Indonesia. Bull. Geol. Soc. Malaysia 10, p. 74-92.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1978006.pdf)
(Main known active faults in Indonesia: Sumatra Fault Zone (1600 km). Palu-Koro FZ, Sulawesi (700km), Irian FZ (1300km), central depression of Timor, Lembang Fault, W Java, Banyumas Depression of Java, active volcanoes and extensive limestone terrains (caving))

Tjia, H.D. (1981)- Examples of young tectonism in Eastern Indonesia. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Mtg., Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, Bandung, p. 89-104.
(Tectonic mobility of E Indonesia reflected in high topographic relief between mountainous islands (+5000m in W Papua) and adjacent deep oceanic sea floors (Weber Deep -7440m), zones of negative isostatic gravity anomalies, volcanic arcs earthquake belts and major wrench fault zones. Also uplifted Pliocene-Recent reef terraces on many E Indonesian islands, up to +1293m on Timor, with long-term uplift rates of 3mm/year)

Tjia, H.D. (1983)- Earthquake stress directions in the Indonesian Archipelago. In: T.W.C. Hilde & S. Uyeda (eds.) Geodynamics of the western Pacific-Indonesian region, American Geophys. Union (AGU) and Geol. Soc. America (GSA) Geodyn. Ser. 11, p. 413-422.

Tjia, H.D. (1987)- Tectonics, volcanism and sea level changes during the Quaternary in Southeast Asia. In: N. Thiramongkol (ed.) Proc. Workshop on Economic geology, tectonics, sedimentary processes and environment of the Quaternary in Southeast Asia, Haid Yai, Thailand 1986, IGCP 218/ Chulalongkorn University, Bangkok, p. 3-21.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Sundaland Holocene sealevel rise 2cm/year after last deglaciation, reaching 4m above present 6000 yrs ago. Vertical uplifts of coral reef terraces and abrasion surfaces in region up to ~1300m. 500 Quaternary volcanic centers identified, 130 active. Etc.)

Tjia, H.D. (1989)- Active tectonics in the Indonesian Archipelago. In: N. Thiramongkol (ed.) Proc. Workshop on Correlation of Quaternary Successions in South, East and Southeast Asia, Bangkok, p. 165-185.

Tjia, H.D. (1991)- Active tectonics in the Indonesian Archipelago-2. Proc. 20th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, p. 281-300.
(During Quaternary vertical displacement in Indonesian archipelago ranged from +2000m to -2000m). Most uplift vertical, as suggested by untilted appearance of most of highest terraces. Lateral slip movements response to convergence of SE Asia, India-Australia and Pacific plates. Influence of Pacific convergence reached W of Makassar Straits, Indian-Australian convergence only traceable in Java and Sumatra. Discussion of uplifted calcirudites at Banyuwangi, E Sulawesi raised reef terraces at Luwuk and Peleng island,etc.)

Tjia, H.D. (1998)- Meridian-parallel faults and Tertiary basins of Sundaland. Bull. Geol. Soc. Malaysia 42, p. 101-118.
(online at: www.gsm.org.my/products/702001-100852-PDF.pdf)
(Pre-Tertiary core of Sundaland contains numerous N-S striking regional faults. In Malay Peninsula Thai-Bentong- Bengkalis FZ coincides with Raub-Bentong suture, which existed since M Triassic. N-S faults of Sundaland functioned as (1) originators/ initiators of Tertiary basins (Mekong, Nam Con Son), (2) determinants of basin location (C Thailand, Gulf of Thailand, Balam-Pematang Trough, BengkalisTrough, Benakat Gully,

Asri, Seribu, Arjuna, basement depressions in Malacca Strait), and (3)modifiers of basin geometry (Peusangan fault in N Sumatra basin; dextral offsets of old series in Malay basin))

Tjia, H.D. (2001)- Wrench tectonics in Sundaland; subsurface and offshore evidence. In: G.H. Teh et al. (eds.) Geological Society of Malaysia Ann. Geol. Conf. 2001, Pangkor Island, p. 71-77.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2001_12.pdf)
(Wrenching widespread in Sundaland. Principal stress directions from wrench patterns, well-bore breakouts and major earthquakes show most of Sundaland currently subjected to N-S stress. Towards margins stress trajectories deviate due to convergence of adjoining megaplates and SE extrusion of Indosinia. Until onset of M Miocene most wrenching transtensional, forming pull-apart depressions and modifying structure of large depocentres. Cessation of spreading in Philippine Sea and Caroline basins by M Miocene changed wrenching into transpression, accompanied by slip-sense reversals and structural inversion)

Tjia, H.D. (2014)- Wrench-slip reversals and structural inversions: Cenozoic slide-rule tectonics in Sundaland. Indonesian J. Geoscience 1, 1, p. 35-52.
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/174/174)
(Sundaland Oligocene transtension evolves into post-E Miocene transpression at Langhian time (~17-15.5Ma), after end of S China sea spreading)

Tjia, H.D., S. Fujii, K. Kigoshi, A. Sugimura & T. Zakaria (1972)- Radiocarbon dates of elevated shorelines, Indonesia and Malaysia. Part 1. Quaternary Research 2, 4, p. 487-495.
(Four radiocarbon dates of elevated strandlines in tectonically active areas of E Indonesia and E Malaysia indicate uplift rates between 4.5- 9 mm/ year during past 24,000 yr. Date from S arm of Sulawesi indicates rate of uplift of 1.4-2.5 mm/ year. At Langkawi islands, W Malaysia, one of regionally common shorelines at 2 m above sea level dated at 2590 ± 100 yr BP)

Tjia, H.D., S. Fujii, K. Kigoshi, A. Sugimura & T. Zakaria (1974)- Late Quaternary uplift in Eastern Indonesia. Tectonophysics 23, 4, p. 427-433.
(Radiocarbon dates of 15 samples from raised shorelines on various islands of E Indonesia suggest rates of tectonic uplift up to 12.5 mm/year)

Tjia, H.D. & K.K. Liew (1996)- Changes in tectonic stress field in northern Sunda Shelf basin. In: R.Hall & D. Blundell (eds.) Tectonic Evolution of Southeast Asia, Geol. Soc. London, Special Publ. 106, p. 291-306.
(Tertiary basins of N Sunda Shelf underlain by normal and attenuated continental crust with moderate- high geothermal gradients >5°C/100 m. In Malay basin, U Oligocene and younger sediments >12 km thick; other basins, 4-8 km thick. Malay, Penyu and W Natuna basins are aulacogens meeting at triple junction that marks Late Cretaceous hot spot in centre of Malay Dome. Sub-basins developed as pull-apart basins within regional, N-NW striking, wrench fault zones. Initial basin subsidence Eocene-Oligocene, with extension prevailing until E Miocene. M-Late Miocene regional compression caused inversions of basin-fill. Some N-striking wrench faults indications of up to 45 km right-lateral displacement, possibly post-Miocene)

Tsuboi, C (1957)- Crustal structure along a certain profile across the East Indies as deduced by a new calculation method. Verhandelingen Kon. Nederl. Geologisch Mijnbouwkundig Genootschap, Geol. Serie 18 (Gedenkboek Vening Meinesz), p. 295-304.

Umbgrove, J.H.F. (1930)- Tertiary sea-connections between Europe and the Indo-Pacific area. Proc. Fourth Pacific Science Congress, Java 1929, IIA, p. 91-104.
(On similarities and differences between Indo-Pacific and European Tertiary faunas. Similarities suggest open sea connections in M Eocene, no connection in Late Eocene, and some faunal interchange of fauna in Oligocene and later)

Umbgrove, J.H.F. (1932)- Het Neogeen in den Indischen Archipel. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 49, 6, p. 769-834.

('The Neogene in the Indies Archipelago'. Substantial review of Neogene stratigraphy in Indonesia, with comments on 163 areas. Neogene sediments highly variable in thickness and intensity and timing of deformation. With map showing 11 Neogene tectostratigraphic regions A-M)

Umbgrove, J.H.F. (1933)- Verschillende typen van Tertiaire geosynclinalen in den Indischen archipel. Leidsche Geol. Mededelingen 6, 1, p. 33-43.
(online at: www.repository.naturalis.nl/document/549704)
('Different types of Tertiary geosynclines in the Indies Archipelago'. Tertiary basins of Sumatra, Java and Kalimantan relatively rapid subsidence and sedimentation. Most of fill is neritic with some hemipelagic sediments, but no abyssal sediments. Subsidence and sedimentation starts in continental areas with fluvial-alluvial deposits. Tertiary basins not continuous 'geosynclines', but rel. independent basins)

Umbgrove, J.H.F. (1934)- Tijd en type der tertiaire plooiingen binnen de zone van sterk negatieve afwijkingen der zwaartekracht in den Indischen archipel. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2) 51, 1, p. 20-34.
('Timing and types of Tertiary folding in zone of negative gravity anomalies in the Indies Archipelago'. With information of Tanimbar stratigraphy from unpublished work by Weber; see Van Bemmelen 1949)

Umbgrove, J.H.F. (1934)- The relation between geology and gravity field in the East Indian Archipelago. In: F.A. Vening Meinesz (1934), Gravity expeditions at sea 1923-1932, Waltman, Delft, 2, Chapter 6, p. 140-162.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)

Umbgrove, J.H.F. (1934)- A short survey of theories on the origin of the East Indian Archipelago. In: F.A. Vening Meinesz (1934), Gravity expeditions at sea 1923-1932, Netherlands Geodetic Commision, Waltman, Delft, 2, Chapter 7, p. 163-182.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)
(Critical review of more than two dozen theories proposed for origin of Indonesian archipelago, published since early 1900's)

Umbgrove, J.H.F. (1935)- Over het ontstaan van den Indischen Archipel. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap II, 52, p. 17-24.
('On the origin of the Indies Archipelago'. Brief discussion on origin of Indonesian archipelago, mainly focused on gravity anomaly belts of Vening Meinesz. No new model proposed, but is skeptical about 'continental drift theory' of Wegener. With regional gravity anomaly map)

Umbgrove, J.H.F. (1935)- De Pretertiaire historie van den Indischen Archipel. Leidsche Geol. Mededelingen 7, p. 119-155.
(online at: www.repository.naturalis.nl/document/549307)
('The Pre-Tertiary history of the Indies Archipelago'. Review of Paleozoic-Mesozoic rocks in Indonesian Archipelago. With small distribution maps of Triassic, Jurassic, Cretaceous fossils and map/ table showing grouping in 7 Mesozoic tectonostratigraphic units A-G)

Umbgrove, J.H.F. (1938)- On the time of origin of the submarine relief in the East Indies. Comptes Rendus Congres Int. Geographie, Amsterdam 1938, Brill, Leiden, 2, p. 150-159.

Umbgrove, J.H.F. (1938)- Geological history of the East Indies. American Assoc. Petrol. Geol. (AAPG) Bull. 22, 1, p. 1-70.
(Classic overview of geologic evolution Indonesian archipelago, with maps of tectonostratigraphic provinces from Permian- Eocene)

Umbgrove, J.H.F. (1949)- Structural history of the East Indies. Cambridge University Press, p. 1-63.
(online at: https://archive.org/details/in.ernet.dli.2015.85833)
(Elegant overview of Indonesian seas, deep sea basins, volcanoes, structural zones, etc., with series of broad paleogeographic maps)

Umbgrove, J.H.F. (1950)- The origin of deep-sea troughs in the East Indies (with discussion). Int. Geological Congress 18th Sess., Great Britain 1948, 8, p. 73-80.
(Pre-plate tectonic explanation of origin of deep sea trenches by 'downbuckling of crust')

Untung, M. (1996)- Geoscientific study along Jawa-Kalimantan-Sarawak-South China Sea transect. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 163-183.
(W Borneo tectonically active from Triassic- Late Cretaceous. CCW rotation of ~90° since then. Tectonic activity resulted in uplift and erosion of basement rocks, formation of melange (Boyan, Lubok Antu), followed by sedimentation of shallow marine deposits and magmatism. In Java tectonic activities only since Late Cretaceous (Luk-Ulo Melange). Etc.)

Untung, M. & B.C. Barlow (1981)- The gravity field of Eastern Indonesia. In: A.J. Barber & S. Wiryusujono (eds.) The geology and tectonics of East Indonesia. Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, p. 53-63.
(Incl. strong E-W trending gravity gradient along N coast Irian Jaya, etc.)

Vacquier, V. (1984)- Oil fields- a source of heat flow data. Tectonophysics 103, p. 81-98.
(Heat flows somewhat elevated in Tertiary basins of W Indonesia, with values decreasing from 130 mW/m2 in C Sumatra to 70 mW/m2 in E Kalimantan)

Vanacore, E., F. Niu & H. Kawakatsu (2006)- Observations of the mid-mantle discontinuity beneath Indonesia from S to P converted waveforms. Geophysical Research Letters 33, L04302, p. 1-4.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2005GL025106)
(Data from nine deep earthquakes confirmed existence of mid-mantle discontinuity beneath Java arc and also revealed its presence N to Kalimantan. S to P waves converted at discontinuity at depth range ~1080 km in W to ~930 km in E)

Van Bemmelen, R.W. (1931)- De bicausaliteit der bodembewegingen. Natuurkundig Tijdschrift Nederlandsch-Indie 91, 3, p. 363-413.
(online at: http://62.41.28.253/cgi-bin/...)
('The double causes of ground movements'. Preliminary unveiling of Van Bemmelen's 'undation theory', a tectonic theory that is variation of the oscillation-theory of Haarmann, but never found much acceptance. Crystallization processes in upper mantle trigger uplift ('geotumors'), subsidence and outward flows to re-establish hydrostatic equilibrium)

Van Bemmelen, R.W. (1932)- De undatie-theorie (hare afleiding en toepassing op het westelijk deel van de Soenda boog). Natuurkundig Tijdschrift Nederlandsch-Indie 92, 1, p. 85-242.
(online at: http://62.41.28.253/cgi-bin/...)
(Principal unveiling of Van Bemmelen's 'undation theory' and its application to the W part of the Sunda orogenic arc. With discussion of deep tectonic processes and also of geology of S Sumatra. See also critical discussion by Van Tuyn and Westerveld (1932))

Van Bemmelen, R.W. (1932)- Nadere toelichting der undatie-theorie. Natuurkundig Tijdschrift Nederlandsch-Indie 92, 2, p. 373-402.
('Clarifying comments on the undation-theory'. Reply to critical comments of Van Tuyn & Westerveld (1932))

Van Bemmelen, R.W. (1933)- Versuch einer geotektonischen Analyse Sudostasiens nach der Undationstheorie. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 36, 7, p. 730-739.
(online at: www.dwc.knaw.nl/DL/publications/PU00016473.pdf)
('Attempt at a geotectonic analysis of SE Asia after the undation theory'. Historically interesting, but otherwise very controversial interpretation of SE Asia tectonics)

Van Bemmelen, R.W. (1933)- Versuch einer geotektonischen Analyse Australiens und des Sudwestpazifik nach der Undationstheorie. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 36, 7, p. 740-749.
(online at: www.dwc.knaw.nl/DL/publications/PU00016473.pdf)
('Attempt at a geotectonic analysis of Australia and the SW Pacific after the undation theory'. Historically interesting, but otherwise very controversial interpretation of Australia-Pacific tectonics)

Van Bemmelen, R.W. (1933)- Die Neogene Struktur des Malaysischen Archipels nach der Undationstheorie. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 36, 10, p. 888-897.
(online at: www.dwc.knaw.nl/DL/publications/PU00016473.pdf)
('The Neogene structure of the Malay Archipelago after the undation theory'. Historically interesting, but otherwise very controversial interpretation of Indonesia tectonics)

Van Bemmelen, R.W. (1933)- Moderne richtingen in de geotektoniek (in verband met de geotektonische positie van den Nederlandsch-Indischen archipel. De Miningenieur 14, 12, p. 205-212.
('Modern theories in geotectonics (in relation to the geotectonic position of the Netherlands Indies archipelago'. Discussion of tectonic theories. At that time in the Indonesian region were several supporters of the Wegener/ Holmes-inspired 'mobilist' school (Vening Meinesz, Escher, Umbgrove, Smit Sibinga), while Van Bemmelen with his undation theory is firmly in 'fixist' camp)

#Van Bemmelen, R.W. (1935)- Over het karakter der jongtertiaire ertsgangen in den vulkanischen binnenboog van het Soenda systeem. Geologie en Mijnbouw 14, p. 21-25.
(online at: https://drive.google.com/file/d/1YydzhGQK3nsnG_MkVDjsU0QQB5CrNviF/view)
('On the nature of the young Tertiary ore veins in the volcanic inner arc of the Sunda system'. During M-U Miocene Sunda Mountain system became geanticlinal. Associated intrusions of granitoid batholiths caused gold-silver mineralization. No figures)

Van Bemmelen, R.W. (1935)- Uber die Deutung der Schwerkraft-Anomalien in Niederlandisch Indien. Geol. Rundschau 26, 3, p. 199-226.
('On the significance of the gravity anomalies in the Netherlands Indies'. Belt of negative gravity anomalies identified by Vening Meinesz and explained by him as downwarping/ buckling of light sialic crust thought to be better explained with Van Bemmelen's 'undation theory')

Van Bemmelen, R.W. (1936)- Kritische beschouwingen naar aanleiding van Bijlaard's theorie over plastische defomaties van de aardkorst. De Ingenieur in Nederlandsch-Indie 1936, (I), 7, p. 87-93.
('Critical discussion of Bijlaard's theory on plastic deformations of the Earth's crust')

Van Bemmelen, R.W. (1936)- Geologische contra mechanische analyse der geotektoniek (Geologische bezwaren tegen Bijlaard's theorie der lokal, plastische deformaties van de aardkorst). De Ingenieur in Nederlandsch-Indie 1936, (I), 11, p. 150-160.
('Geological versus mechanical analysis of geotectonics (Geological objections against Bijlaard's theory of local plastic deformations of the Earth's crust)'. Second part of discussion between Van Bemmelen and Bijlaard on tectonic theory for Indonesian region)

Van Bemmelen, R.W. (1937)- De isostatische anomalieen in den Indischen Archipel. De Ingenieur in Nederlandsch-Indie (IV), 4, 2, p. 9-29.
('The isostatic anomalies in the Indies Archipelago'. Discussion of models explaining belts of negative gravity anomalies by crustal downbuckling (Vening Meinesz, Bijlaard, Umbgrove, Kuenen). These models do not explain observed asymmetric thrust tectonics. VanB proposes alternative 'fixist' 'undation theory')

Van Bemmelen, R.W. (1938)- The distribution of the regional isostatic anomalies in the Malayan Archipelago. De Ingenieur in Nederlandsch-Indie (IV), 5, 4, p. 61-67.
(Review of regional gravity anomalies and apparent relations to deep-focus earthquakes, with interpretation)

Van Bemmelen, R.W. (1939)- Gravitational tectogenesis in the Soenda Mountain System. In: Proc. 17th Int. Geological Congress, Moscow 1937, 2, p. 361-382.

Van Bemmelen, R.W. (1949)- The geology of Indonesia, vol. 1A, General geology of Indonesia and adjacent archipelagoes. Government Printing Office, Government Printing Office, The Hague, p. 1-732.
(also in 1970 reprint edition by Martinus Nijhoff Publishers, with updated references list)
(Classic, monumental overview of pre-WWII knowledge of Indonesia geology, in 3 volumes. Still the most comprehensive compilation of geology of region. Excellent documentation of state of knowledge of regional geology and stratigraphy of Indonesia at end of colonial period. Many of the tectonic interpretations using the 'undation theory' model are controversial and outdated)

Van Bemmelen, R.W. (1949)- The geology of Indonesia, vol. 1B, Portfolio. Government Printing Office, (Martinus Nijhoff), The Hague.
(Box set of 41 plates and Literature references list, accompanying vol. 1A)

Van Bemmelen, R.W. (1949)- The geology of Indonesia, vol. 2, Economic geology. Government Printing Office (Martinus Nijhoff), The Hague, p. 1-265.
(Comprehensive review of deposits of oil, coal, metals, industrial minerals in Indonesia, as known in 1949)

Van Bemmelen, R.W. (1950)- On the origin of igneous rocks in Indonesia. Geologie en Mijnbouw 12, 7, p. 207-220.
(online at: https://drive.google.com/file/d/1VmYPZcRfi805lErwX2tKGVTeF7M89i6j/view)
(On relationships between igneous rock types and tectonic settings. Rather outdated)

Van Bemmelen, R.W. (1950)- Gravitational tectogenesis in Indonesia. Geologie en Mijnbouw 12, 12, p. 351-361.
(Similar title to Van Bemmelen 1939. Only vertical movements are result of endogenic forces; all other tectonic forces are reactions to gravitation: (1) 'epidermal (within sedimentary cover: slumping, volcano-tectonic collapse (Tambakan Ridge folding N of Bandung), free gliding (Karangkobar, C Java, Seram, Timor, Jambi nappes), compressive settling in lows (Samarinda anticlinorium in E Kalimantan, Kendeng zone in E Java), etc.), (2) 'dermal' (includes crystalline crust; Flores, Npart of southern mountains from Lombok to W Java), (3) bathydermal' (sidewards displacement mainly in lower crust; Sunda Straits) and (4) subcrustal (sideward displacements in base of crust or deeper). With examples from Indonesia)

Van Bemmelen, R.W. (1952)- De geologische geschiedenis van Indonesie. Van Stockum, Den Haag, p. 1-139.
('The geological history of Indonesia'. Popular summary of Indonesia geological evolution)

Van Bemmelen, R.W. (1953)- Relations entre le volcanisme et la tectogenese en Indonesie. Bull. Volcanologique, ser. II, 13, p. 57-62.
('Relations between volcanism and tectonics in Indonesia'. Summary of 1951 lecture. Uses Sunda Arc region as examples, but not much detail)

Van Bemmelen, R.W. (1954)- Mountain building; a study primarily based on Indonesia region of the worldôs most active deformations. Martinus Nijhoff, The Hague, p. 1-177.
(Pre-plate tectonics text book on mountain building, primarily based on Indonesian geology and interpreted mainly in terms of the controversial 'undation theory'. Two parts: 'Principles of mountain building' (p. 1-35) and 'The orogenic evolution of the Earth's crust in Indonesia' (p. 36-167))

Van Bemmelen, R.W. (1954)- The geophysical contrast between orogenic and stable areas. Geologie en Mijnbouw 16, 8, p. 326-334.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QzA4cUJzVmlrNGM/view)
(Extended commentary of Collette (1954) thesis 'On the gravity field of the Sunda region'. Includes chapter on interpretation of gravity field of West Indonesia. Positive anomaly with steep gradients over Wijnkoopsbaai

(Ciletuh Bay) on Profile VI probably results from ophiolithic high-density rocks near surface. Belt of negative anomalies over Kendeng zone of NE Java result of either bending down of crust and filling with low-density sediments or small asthenolithic blisters at base of sialic crust. Etc. With Collette reply)

Van Bemmelen, R.W. (1955)- Lôevolution orogenetique de la Sonde (Indonesie). Bull. Soc. Belge Geol. Paleont. Hydrologie 64, 1, p. 124-152.
('The orogenetic evolution of Indonesia'. Another overview of Indonesia tectonic evolution in terms of Van Bemmelen's 'undation theory')

Van Bemmelen, R.W. (1965)- Mega-undations as the cause of continental drift. Geologie en Mijnbouw 44, 9, p. 320-333.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0N3RER1RoZ0J2d1E/view)
(Modification in Van Bemmelen's 'unique' tectonic views, now allowing some mobilism in his previously fixist 'undation theory'. Where 'mega-undations' (large mantle-driven uplifts) occur in continental areas, such as Gondwana, new oceanic basins will open up above a 'basaltic blister', with mid-oceanic rifts forming on crest by 'oceanization'. Overlying units drift sidewards under gravity, towards 'mega-undatory downwarps'. Not much on SE Asia)

Van Bemmelen, R.W. (1965)- The evolution of the Indian Ocean mega-undation (causing the Indico-fugal spreading of Gondwana fragments). Tectonophysics 2, 1, p. 29-57.
(online at: http://igitur-archive.library.uu.nl/geo/2006-1215-204156/bemmelen_65_evolution.pdf)

Van Bemmelen, R.W. (1976)- Plate tectonics and the undation model. Tectonophysiscs 32, p. 145-182.
(One of later papers by Van Bemmelen on his undation theory', first proposed by him in 1931, but debated from start and never found general acceptance. Unlike most of the rest of the world, Van B never accepted plate tectonics theory or subduction)

Van Bemmelen, R.W. (1978)- The present formulation of the undation theory. Zeitschrift Geologische Wissenschaften 6, 6, p. 523-540.
('Final?' review of Van Bemmelen's Undation theory, with short summary how it drives Indonesian tectonics)

Van der Voo, R. (1993)- Paleomagnetism of the Atlantic, Tethys and Iapetus Oceans. Cambridge University Press, p. 1-411.
(Review of global paleomagnetic data, including Sibumasu, Borneo, E Indonesia, etc.. Misool-Timor probably not continuously part of Australian Plate: Misool paleolatitudes 10-20° lower than predicted if remained with Australia. Good paleomagnetic data set for Borneo suggests all paleolatitudes close to Equator. Large rotations suggested for Cretaceous of Sumba and Timor, etc.)

Van Es, L.J.C. (1918)- De voorhistorische verhoudingen van land en zee in den Oost-Indischen Archipel, en de invloed daarvan op de verspreiding der diersoorten. Jaarboek Mijnwezen Nederlandsch Oost-Indie 45 (1916), Verhandelingen 2, p. 255-304.
('The prehistoric relationships of land and sea in the East Indies Archipeago and its influence on the distribution of the animal species'. Pliocene paleogeography of Indonesian archipelago)

Van Es, L.J.C. (1919)- De tectoniek van de westelijke helft van de Oost Indische Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 46 (1917), Verhandelingen 2, p. 15-144.
('The tectonics of the western half of the East Indies Archipelago'. Synthesis of Western Indonesia geology as known in 1917. With 4 map sheets)

Van Es, L.J.C. (1930)- Beschouwingen over een nieuwe geotektonische kaart van Nederlandsch-Indie. De Mijningenieur 11, 32p.
('Comments on a new geotectonic map of the Netherlands Indies'. Critical discussion of new tectonic map of Indonesia by Zwierzycki (1929-1930))

Van Hinte, J.E., T.C.E. van Weering & A.R. Fortuin (eds.) (1989)- Proceedings of the Snellius II Symposium, Geology and geophysics of the Banda Arc and adjacent areas, Jakarta 1987, vol. 1. Netherlands J. Sea Research 24, 2-3, p. 93-381.

Van Hinte, J.E., T.C.E. van Weering & A.R. Fortuin (eds.) (1989)- Proceedings of the Snellius II Symposium, Geology and geophysics of the Banda Arc and adjacent areas, Jakarta 1987, vol.2. Netherlands J. Sea Research 24, 4, p. 383-622.

Van Tuyn, J. & J. Westerveld (1932)- Opmerkingen naar aanleiding der 'undatie theorie' van Bemmelen en hare toepassing op het westelijk deel van de Soendaboog. Natuurkundig Tijdschrift Nederlandsch-Indie 92, p. 341-372.
(online at: http://62.41.28.253/cgi-bin/)
(Critical review of Van Bemmelen's (1932) new tectonic 'undation theory' and its application to the western part of the Sunda Arc. With discussion of Sumatra geology, which is not believed to fit 'undation theory')

Vening Meinesz, F.A. (1930)- Maritime gravity survey in the Netherlands East Indies, tentative interpretation of provisional results. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 33, p. 566-577.
(online at: www.dwc.knaw.nl/DL/publications/PU00015922.pdf)
(First account of Vening Meinesz' well-known shipboard gravity work. Principal feature discovered is 'Axis of Vening Meinesz', a ~100 miles wide narrow strip of strong negative anomalies through whole archipelago (W of Sumatra, S of Java, islands of Timor, Tanimbar, Kei, Seram, then to North), bordered at both sides by fields of positive anomalies. With map of ship traverses and stations, and axis of negative gravity anomalies)

Vening Meinesz, F.A. (1932)- Gravity expeditions at sea 1923-1930, Vol. I. The expeditions, the computations and the results. Netherlands Geodetic Commision, Waltman, Delft, p. 1-109.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/03VeningMeinesz.pdf)
(First report on marine gravity surveys in Indonesia and other areas)

Vening Meinesz, F.A. (1933)- The mechanism of mountain-formation in geosynclinal belts. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam 36, p. 372-377.
(online at: www.dwc.knaw.nl/DL/publications/PU00016417.pdf)
(Speculation on process of mountain building, mainly driven by VM's observation of long belts of highly negative gravity anomalies and associated earthquake centra in Indonesian region. Apparent crustal downbuckling and associated folding-thrusting are early stages of alpine-style mountain building. 'Probable that the earth's crust is pushing laterally under the islands of the Indonesia orogenic belt'. (No figures)

Vening Meinesz, F.A. (1934)- Gravity expeditions at sea 1923-1930, Vol. II. Report of the gravity expedition in the Atlantic of 1932 and The interpretation of the results. Netherlands Geodetic Commision, Waltman, Delft, p. 1-208.
(online at: https://www.ncgeo.nl/downloads/04VeningMeinesz.pdf)
(Includes chapters on 'Relation between geology and gravity field in the East Indian Archipelago' and 'Theories on the origin of the East Indian Archipelago' by Umbgrove (p. 140-182) and 'Relations between submarine topography and gravity field' by Kuenen (p, 183-194))

Vening Meinesz, F.A. (1934)- Interpretation of the gravity anomalies in the Netherlands East Indies. In: F.A. Vening Meinesz (1934), Gravity expeditions at sea 1923-1932, Netherlands Geodetic Commision, Waltman, Delft, 2, Chapter 5, p. 116-139.
(online at: www.ncg.knaw.nl/Publicaties/Groen/pdf/04VeningMeinesz.pdf)
(One of first Indonesia-wide gravity anomalies maps. Control density is limited, but clearly shows belts of negative anomalies outlining accretionary wedge belts, maximum positive anomalies for oceanic basins, etc. First paper to suggest trenches with their negative anomalies are site of seafloor 'downbuckling', later understood as subduction)

Vening Meinesz, F.A. (1939)- De theorie van Wegener. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 56, p. 453-457.
(Geophysical work in Netherlands Indies and other regions no clear data to support or negate the Wegener theory of continental drift)

Vening Meinesz, F.A. (1940)- The earth's crust deformation in the East Indies. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam 43, 3, p. 278-293.
(online at: www.dwc.knaw.nl/DL/publications/PU00017410.pdf)
(New regional isostatic gravity anomaly map of Indonesia. Shift of axis of Sunda-Banda trench minimum gravity zone between Sumba and Timor)

Vening Meinesz, F.A. (1946)- Deep focus and intermediate earthquakes in the East Indies. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam 49, 8, p. 855-865.
(online at: www.dwc.knaw.nl/DL/publications/PU00015922.pdf)
(Earthquake centres in 3 groups: (1) shallow (<60 km) in rigid crust and mostly in tectonically active areas; (2) intermediate shocks at depths of 60-300 km, and (3) deep shocks between 300-700 km. In many cases these centres are more or less located in inclined planes cutting surface in belts of strong tectonic activity. No deep shocks in Sumatra area. Deep earthquakes tied to convection currents in mantle)

Vening Meinesz, F.A. (1954)- Indonesian archipelago- a geophysical study. Geol. Soc. America (GSA) Bull. 65, p. 143-164.
(Early paper on belts of strong negative gravity anomalies and VM's theory of 'crustal downbuckling' (which came close to recognizing subduction). Main tectonic arcs of Indonesia caused by SSE movement of inner crustal block relative to crust outside arc and, for second tectonic arc, by movement of a NE block in E direction. Mantle convection currents may account for relative block movements and crustal compression and also explain deep and intermediate earthquake foci, the sinking of the deep basins, etc. North Makassar Straits, Celebes Sea and N and S Banda Seas positive isostatic anomalies of +50- +100 mgal (remarkably, no mention of Van Bemmelen work/theories))

Verbeek, R.D.M. (1900)- Voorlopig verslag over eene geologische reis door het oostelijk gedeelte van den Indischen Archipel. Extra bijvoegsel Javasche Courant 1900, 66, p. 3-48.
('Preliminary account of a geological trip through the eastern part of the Indies Archipelago'. Early summary of Verbeek (1908) book)

Verbeek, R.D.M. (1908)- Molukkenverslag. Geologische verkenningstochten in het oostelijke gedeelte van den Nederlandsch Oostindische Archipel. Jaarboek Mijnwezen Nederlandsch Oost-Indie 37 (1908), Wetenschappelijk Gedeelte, 826p. + Atlas
('Moluccas Report- geological reconnaissance trips in the eastern part of the Netherlands East Indies archipelago'. Classic early geological reconnaissance survey of 250 islands in E Indonesia, and last of Verbek's voluminous reports on geology of parts of Indonesia. Includes brief paleontological reports by specialist paleontologists. 'Old schist formation' metamorphics rel. widespread. Permian present on Timor and adjacent islands, possibly also on Ambon and Babar. Locally bituminous Triassic brachiopod limestones on Ambon. Widespread marine Mesozoic sediments. Triassic- Jurassic rocks and faunas similarities with Himalyas and Alps, etc.)

Verbeek, R.D.M. (1908)- Rapport sur les Moluques. Reconnaissances geologiques dan la partie orientale de l'archipel des Indes orientales neerlandaises. Government Printing Office, Batavia, 844p. + Atlas.
(French edition of Verbeek (1908))

Vergnolle, M., E. Calais & L. Dong (2007)- Dynamics of continental deformation in Asia. J. Geophysical Research 112, B11403, p. 1-22.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2006JB004807/pdf)
(Another model of Asia tectonic plates relative horizontal motions from GPS measurements)

Verstappen, H.Th. (2010)- Indonesian landforms and plate tectonics. J. Geologi Indonesia 5, 3, p. 197-207.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/275)
(Landforms in Indonesia resulted primarily from plate tectonics. Greatest relief amplitudes near plate boundaries: deep ocean trenches at subduction zones and mountain ranges at collision belts. Living and raised coral reefs, volcanoes, and fault scarps are important geomorphic indicators of active plate tectonics)

Villeneuve, M., J.J. Cornee, J.P. Rehault, C. Honthaas et al. (2000)- Tectonostratigraphy of the East Indonesian blocks. AAPG Int. Conf. Bali 2000, American Assoc. Petrol. Geol. (AAPG) Bull. 84, 9, p. 1511. (*Abstract*).

Villeneuve, M., R. Martini, H. Bellon, J.P. Rehault, J.J. Cornee, O. Bellier, S. Burhanuddin, F. Hinschberger, C. Honthaas & C. Monnier (2010)- Deciphering of six blocks of Gondwanan origin within Eastern Indonesia (South East Asia). Gondwana Research 18, p. 420-437.
(E Indonesia 3 main plates (Eurasian, Indo-Australian, Philippine-Pacific), 7 blocks (six from NE Gondwanan margin, Halmahera from Pacific plate). Timor and Kolonodale (or Argo) blocks came from NW Australian margin. Lucipara, Seram and Banggai-Sula blocks originated from W extension of PNG while Irian Jaya block is still linked to N Australian margin. Timor and Kolonodale blocks detached from Gondwana in Jurassic; Lucipara, Seram and Banggai-Sula detached from PNG in Neogene. All Gondwanan blocks collided with Eurasian active margin near Sulawesi. Timor and Kolonodale joined Eurasian margin by end Paleogene. Lucipara, Seram and Banggai-Sula collided with Sulawesi between M Miocene- M Pliocene and, with Kolonodale, suffered opening of N and S Banda back-arc basins by Late Miocene. Timor block moved S with S margin of S Banda basin and collided with N Australian margin in M Pliocene)

Villeneuve, M., J.P. Rehault, J.J. Cornee, C. Honthaas & W. Gunawan (1998)- Geodynamic evolution of Eastern Indonesia from the Eocene to the Pliocene. Comptes Rendus Academie Sciences, Paris, Ser. IIA, Earth Planetary Sci., 327, 5, p. 291-302.
(Geodynamic reconstruction based on evolution of 4 continental blocks, trapped by convergence of Asian, Australian and Pacific plates: (1) Banda (= dismembered E Sulawesi, Buru, Seram, Sinta Ridge), (2) Banggai-Sula, (3) Lucipara (S Banda Ridges, Tukang-Besi Ridge + Kur, Tanimbar; Oligocene-E Miocene arc, with E Miocene metamorphism event) and (4) Halmahera. Main events: (1) Late Eocene-Oligocene collision Banda block- Sulawesi; (2) E Miocene collision Lucipara Block (incl. Tukang Besi)- Banda Block in Buton; (3) Late Miocene extension with opening of N. Banda, S. Banda, Savu basins; (4) E Pliocene collision Banggai Sula- E Sulawesi; (5) Late Pliocene collisions of Australia and Banda and Irian Jaya blocks. Timor with its Late Miocene calc-alkaline intrusions in N was part of Banda Arc before M Pliocene collision with Australia)

Villeneuve, M., J.P. Rehault, J.J. Cornee, C. Honthaas, W. Gunawan, Geobanda-Group (1998)- The main steps of the geodynamic evolution of Eastern Indonesia since Upper Eocene times. In: The geodynamics of S and SE Asia (GEODYSSEA) Project, p. 264-275.

Visser, S.W. (1930)- On the distribution of earthquakes in the Netherlands East Indian Archipelago II, 1902-1926. Verhandelingen Kon. Magnet. en Meteorologisch Observatorium, Batavia, 22, Albrecht, Weltevreden, p. 1-120.

Visser, S.W. (1937)- Aardbevingen met zeer diepen haard in Nederlandsch Indie. Natuurkundig Tijdschrift Nederlandsch-Indie 97, 3, p. 168-172.
(online at: http://62.41.28.253/cgi-bin/...)
('Earthquakes with very deep source in Netherlands Indies'. Describes Berlage (1937) observation that deep-focus earthquakes occur along inclined surface, dipping 30-40° from borders of ocean under continent in Indonesia)

Visser, S.W. (1937)- A connection between deep-focus earthquakes and anomalies of terrestrial magmatism and gravity. Terrestrial Magnetism and Atmospheric Electricity 42, 4, p. 361-362.
(online at: www.agu.org/journals/te/v042/i004/TE042i004p00361/TE042i004p00361.pdf)
(Deep-focus earthquakes occur in well-defined areas. Loci deeper than 600km in Japan, Philippines, Moluccas, Java Sea, etc., all along inclined surface, sloping 30-40° from borders of ocean down below continents.

Associated with axis of negative gravity anomalies of Vening Meinesz. May be related to current systems in inner earth (NB: first discovery of what later became known as Wadati-Benioff zone; JTvG))

Visser, S.W. (1938)- Seismic isobaths in the East Indian Archipelago. Gerlands Beitrage Geophysik 53, p. 389-391.
(On earthquake belts and possible connection with Vening Meinesz's gravity anomalies)

Volz, W. (1912)- Der Malaiische Archipel, sein Bau und sein Zusammenhang mit Asien. Sitzungsberichte Phys.-Mediz. Soz. Erlangen 44, p. 178-204.
('The Malay Archipelago: its framework and relation with Asia'. Early, obsolete tectonic model of Indonesia)

Voris, H.K. (2000)- Maps of Pleistocene sea levels in Southeast Asia: shorelines, river systems and time durations. J. Biogeography 27, 5, p. 1153-1167.
(Rather simplistic series of maps from Australia to Sri Lanka to Taiwan showing areas of exposed land in Indo-Australian region during periods of Pleistocene when sea levels were below present day levels)

Vroon, P.Z., M.J. Van Bergen & E.J. Forde (1996)- Pb and Nd isotope constraints on the provenance of tectonically dispersed continental fragments in East Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic Evolution of Southeast Asia, Geol. Soc., London, Spec. Publ. 106, p. 445-453.
(Pb-Nd isotope signatures of igneous and (meta) sedimentary rocks from E Indonesia continental fragments help identify provenance areas: Ambon-Seram= southern New Guinea, Bacan= North Australia, Banda Ridges = 'Pacific' New Guinea and Sumba= Sundaland)

VSI (Volcanological Survey Indonesia) (2005)- Geothermal resources in Indonesia. Volc. Survey Indon. (VSI) Geothermal Division, p.
(online at: www.vsi.esdm.go.id/pbumi/index.html)

Wakita, K. (1996)- Cretaceous subduction, accretion and collison along the southeastern margin of Sundaland. In: S.Y. Kim et al. (eds.) Proc. 32nd Ann. Sess.Coord. Comm. Coastal Offshore Geosc. Progr. E and SE Asia (CCOP), Tsukuba 1995, p. 201-218.
(Early version of Wakita series of papers on Cretaceous accretionary complexes at SE Sundaland margin, particularly Luk-Ulo melange complex in C Java and Bantimala Complex of S Sulawesi)

Wakita, K. (1997)- Oceanic plate stratigraphy and tectonics in East and Southeast Asia. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution in Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 388-401.
(Components of ancient accretionary complexes include pillow basalt, limestone, radiolarian chert and shale, ultramafic rocks, glaucophane schist, etc. Radiolarian biostratigraphy useful for reconstruction of accretionary complexes, as shown in example of Luk-Ulo Melange of C Java. Lithologic successions in different tectonic units similar and reflect 'Oceanic Plate Stratigraphy' sequence:(1) birth of oceanic plate at oceanic ridge, (2) formation of volcanic islands near ridge covered by reefs (= Orbitolina Limestone?; HvG), (3) calcilutite sedimentation at flank of volcanic islands, (4) pelagic deposition of radiolarians on oceanic plate, (5) mixing with detrital clays to form hemipelagic siliceous shale, and (6) sandstone- shale near trench of convergent margin. Radiolarian biostratigraphy of Luk Ulo show Valanginian- Campanian oceanic chert deposition)

Wakita, K. (1999)- Mesozoic melange formation in Indonesia; with special reference to Jurassic melanges of Japan. In: G.H. Teh (ed.) Proc. 9th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA ô98), Kuala Lumpur 1998, Bull. Geol. Soc. Malaysia 43, p. 19-30.
(online at: www.gsm.org.my/products/702001-100838-PDF.pdf)
(Cretaceous melanges in (1) C Java (Luk Ulo; mainly HP metamorphics, bedded cherts siliceous shale, ultramafics, etc.; overlain by Eocene), (2) S Sulawesi (Bantimala; also mainly HP metamorphics, ultramafics, bedded cherts etc.) and (3) S Kalimantan (Meratus; mainly bedded chert, ultramafics, schist; unconformably overlain by Eocene). Clasts of metamorphic and ultrabasic rocks derived from blocks exhumed following microcontinent collision; incorporated within melanges during microcontinental collision)

Wakita, K. (2000)- Cretaceous accretionary: collision complexes in central Indonesia. J. Asian Earth Sci. 18, 6, p. 739-749.
(Cretaceous accretionary complexes in W Java (Ciletuh), C Java (Karangsambung, Jiwo), S and C Sulawesi and SE Kalimantan (Meratus, Pulau Laut) reflect Cretaceous convergent SE margin of Sundaland craton, which was surrounded by marginal sea, with immature volcanic arc at periphery. Oceanic plate subducted beneath arc from S, carrying microcontinents detached from Gondwanaland. Accretionary wedge with fragments of oceanic crust. Jurassic shallow marine allochthonous formation was emplaced by collision of continental blocks in Bantimala, S Sulawesi. Collision exhumed very high pressure metamorphic rocks from deeper parts of accretionary wedge)

Wakita, K. & I. Metcalfe (2005)- Ocean plate stratigraphy in East and Southeast Asia. J. Asian Earth Sci. 24, p. 679-702.
(Ancient accretionary wedges recognized by glaucophane schist, radiolarian chert and melange. Typical 'Ocean Plate Stratigraphy' (OPS) from old to young: pillow basalt s(birth of oceanic plate at mid-ocean ridge), limestone (ridge covered by reefs), radiolarian chert (pelagic sediment), siliceous shale (mixed radiolarians and detrital grains in hemipelagic setting) and shale- sandstone (sedimentation at or near trench of convergent margin). Radiolarian biostratigraphy provides information on time and duration of ocean plate subduction)

Wakita, K., I. Metcalfe, S. Hada & M.J.N. Daigo (2000)- Digital terrane map of East and Southeast Asia. Geosciences J. 4, p. 19-22.

Wakita, K., K. Miyazaki, J. Sopaheluwakan, I. Zulkarnain, C. Parkinson & Munasri (1997)- Cretaceous subduction complexes along the southeastern margin of Sundaland. Mem. Geol. Soc. Japan 48, p. 152-162.
(Sundaland surrounded by accretionary complexes and accreted microcontinents rifted from Gondwanaland. Cretaceous accretionary complexes in C Java, S Sulawesi and S Kalimantan similar components, but different histories. Luk-Ulo, C Java, subduction complex formed by continuous subduction of oceanic plate throughout Cretaceous. Meratus (S Kalimantan), also product of oceanic plate subduction in island arc setting. Bantimala, S Sulawesi, ocean plate subduction followed by collision of continental fragment)

Wakita, K., M. Pubellier & B.F. Windley (2013)- Tectonic processes, from rifting to collision via subduction, in SE Asia and the western Pacific: a key to understanding the architecture of the Central Asian orogenic belt Lithosphere 5, 3, p. 265-276.
(On processes of accretion of continental blocks in Tertiary in SE Asia and W Pacific. Subduction associated with back-arc extension, particularly in Indonesia and SW Pacific region. Arc-arc collisional complexes present in Taiwan, Philippines and Japan. Geological record of SE Asia and W Pacific provides modern analogue for geological and tectonic history of Central Asian Orogenic Belt)

Waluyo (1992)- Seismotectonics of eastern Indonesian region. Ph.D. Thesis St. Louis University, p. 1-343. *(Unpublished)*
(Earthquake data (ISC 1970-1986) used for interpretation of East Indonesia tectonics)

Wang, J.H., A. Yin, T.M. Harrison, M. Grove, Y.Q. Zhang & G.H. Xie (2001)- A tectonic model for Cenozoic igneous activities in the eastern Indo-Asian collision zone. Earth Planetary Sci. Letters 188, p. 123-133.

Wanner, J. (1907)- Triaspetrefakten der Molukken und des Timorarchipels. Neues Jahrbuch Mineral. Geol. Palaont., Beilage Band 24, p. 159-220.
('Triassic fossils from the Moluccas and Timor Archipelago'. Late Triassic molluscs, corals, ammonites faunas from Misool (Carnian dark shales with Daonella), Seram (typical Tethys-Mediteranean Norian molluscs Monotis salinaria, Amonotis and brachiopod Halorella). From Seram limestone come corals Thecosmilia n.sp. aff. clathrata and Montlivaltia molukkana n.sp. and Pachypora intabulata n.sp. (= Lovcenipora vinassai; JTvG). Also Triassic fossils from Timor-Roti- Savu (generally deeper water facies, but potentially similar 'alpine' character with mainly Halobia, Daonella, but also 'Pacific' mollusc Pseudomonotis ochotica).

Timor/Roti/ Savu Triassic reminiscent of North Sumatra Upper Triassic described by Volz, 1899. First author to recognize Alpine/ Tethyan affinities of Late Triassic bivalves and ammonites of Seram and Timor)

Wanner, J. (1910)- Einige geologische Ergebnisse einer im Jahre 1909 ausgefuhrten Reise durch den Ostlichen Teil des indoaustralischen Archipels: Vorlaufige Mitteilung. Centralblatt Mineralogie Geologie Palaont. 1910, 5, p. 137-147.
(online at: www.biodiversitylibrary.org/item/192869#page/159/mode/1up)
('Some geological results of a 1909 trip through the eastern part of the Indo-Australian Archipelago; preliminary communication'. Summary of journey to Misool (fossil-rich Mesozoic), C Halmahera (ultramafic rocks, ?Mesozoic red-brown radiolarite, Tertiary clastics), Obi (found M Jurassic Stephanoceras and other ammonites at W coast along Akelamo River, and Miocene fossil-rich clastics) and Timor (Permian rich in fossils, Eocene Alveolina- Nummulites limestones, etc.. No figures)

Wanner, J. (1910)- Neues uber die Perm-, Trias- und Juraformation des Indo-Australischen Archipels. Centralblatt Mineralogie Geologie Palaont. 1910, p. 736-741.
(online at: www.biodiversitylibrary.org/item/192869#page/766/mode/1up)
('News on the Permian, Triassic and Jurassic formations of the Indo- Australian Archipelago'. Short note on Timor Permian ammonites (incl. common Agathiceras), and U Triassic fauna of platy limestone of Bukit Kandung/ Lurah Tambang in W Sumatra, previously decribed by Boettger and interpreted as Eocene, with Myophoria, Cardita. Fauna very similar to Nucula Marl of Misool and probably of U Norian age. No figures)

Wanner, J. (1921)- Zur Tektonik der Molukken. Geol. Rundschau 12, 3-5, p. 155-165.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN000456594)
(Early paper on the tectonics of the Moluccas, with focus on geology of Buru Island)

Wanner, J. (1925)- Die Malaiische Geosynklinale im Mesozoikum. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie 8 (Verbeek volume), p. 569-599.
('The Malayan geosyncline in the Mesozoic'. Rel. lengthy review of Mesozoic stratigraphy and macrofaunas across Indonesia. No figures)

Wanner, J. (1931)- Echinodermata In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geol. Mededelingen 5 (K. Martin memorial volume), p. 436-460.
(online at: www.repository.naturalis.nl/document/549766)
(Listings of Paleozoic- Neogene echinodermata described from Indonesia. Permian of Timor richest in world with 320 species (50 blastoids, 270 crinoids). Number of Mesozoic species ~10% of Permian, mainly in Triassic. In Jurassic only two species, Pentacrinus rotiensis from Roti and Holectypus from Buru, Cretaceous similarly poor). Tertiary 85 species)

Wanner, J. (1931)- Mesozoikum. In: B.G. Escher et al. (eds.) De palaeontologie en stratigraphie van Nederlandsch Oost-Indie, Leidsche Geol. Mededelingen 5 (K. Martin memorial volume), p. 567-609.
(online at: www.repository.naturalis.nl/document/549402)
(Comprehensive review of distribution of Mesozoic rocks and fossils in E Indonesia, Sumatra, Borneo, etc.. With correlation tables for Triassic, Jurassic and Cretaceous)

Wanner, J. (1940)- Gesteinsbildende Foraminiferen aus dem Malm und Unterkreide des ostlichen Ostindischen Archipels, nebst Bemerkungen uber *Orbulinaria* Rhumbler und andere verwandte Foraminiferen. Palaont. Zeitschrift 22, 2, p. 75-99.
('Rock-building foraminifera from the Malm and Lower Cretaceous in the eastern East Indies Archipelago'. First description of Upper Jurassic calcispheres (Stomiosphaera moluccana, Cadosina fusca) from Timor, Misool, Seram, Roti, Buton and E Sulawesi. Marker species for Tethyan latest Jurassic (+earliest Cretaceous?) (NB: these are not foraminifera; JTvG))

Watkinson, I.M. & R. Hall (2017)- Fault systems of the eastern Indonesian triple junction: evaluation of Quaternary activity and implications for seismic hazards. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Spec. Publ. 441, p. 71-120.
(Study of 27 fault systems in Eastern Indonesia. Most fault systems highly segmented, many linked by narrow (<3 km) stepovers to form quasi-continuous segments capable of M> 7.5 earthquakes. Sinistral shear across soft-linked Yapen and Tarera- Aiduna faults and continuation into transpressive Seram fold thrust belt perhaps most active belt of deformation. Palu-Koro Fault of Sulawesi long, straight and capable of super shear ruptures, considered to be greatest seismic risk in region)

Watkinson, I.M., R. Hall, M.A. Cottam, I. Sevastjanova, S. Suggate, I. Gunawan et al. (2012)- New insights into the geological evolution of Eastern Indonesia from recent research projects by the SE Asia Research Group. Berita Sedimentologi 23, p. 21-27.
(online at: www.iagi.or.id/fosi/)
(Brief review of ongoing Indonesia research projects at University of London/ Royal Holloway group)

Wegener, A. (1922)- Die Entstehung der Kontinente und Ozeanen. 3rd ed., Vieweg, Braunschweig, p. 1-144.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.$b34771;view=1up;seq=1)
('The origin of the continents and oceans'. Third edition of classic book on continental drift theory and breakup of Pangea supercontinent after Late Carboniferous. Explanation for arcuate shape of Banda Arc by NW movement of Australia- New Guinea continent into Indonesian archipelago)

Wensink, H. (1987)- Displaced terranes of Gondwana origin in Indonesia: paleomagnetic implications. Annales Soc. Geologique du Nord VII, p. 81-87.
(Summary of paleomag data from E Indonesia. Timor: Permian is displaced terrane of Australian origin; Early Cretaceous deep sea sediment formed ~1000km to S, shifted N with N drift of Australia). Original position of Misool rel. to Australia was farther N than today)

Westerveld, J. (1936)- The granites of the Malayan tin belt compared with tin-granites from other regions. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 39, 10, p. 1199-1209.
(online at: www.dwc.knaw.nl/DL/publications/PU00016993.pdf)
(Great petrographic uniformity of tin-bearing and related granite rocks of Inner Malayan Arc (Malay PeninsuIa, Indonesia Tin Islands, etc.) Tin-granites end-stages of differentiation of acid magmas, with proportions of main constituents not essentially different from non- tin-bearing biotite-granites)

Westerveld, J. (1939)- Metaalprovincies in Nederlandsch Oost-Indie. Public address at the start of position of lecturer in economic geology at the University of Amsterdam. Amsterdam, 30p.
('Metal provinces in the Netherlands East Indies'. Four main metallogenic provinces: (1) tin islands Bangka-Billition, etc. (2) Gold-silver mineralization on Sumatra, associated with ?Cretaceous intrusives, (3) W and S Sumatra gold-silver associated with post-Miocene intrusives and (4) nickel-iron in Banda Arc- E Sulawesi, associated with ultrabasic rocks. No figures)

Westerveld, J. (1949)- Fasen van gebergtevorming en ertsprovincies in Nederlands Oost-Indie. De Ingenieur 1949, 12-13, p. 1-25.
('Phases of mountain building and ore provinces in Netherlands East Indies'.Review of tectonics of Indonesia and associated mineral deposits. W of New Guinea four concentric orogens: (1) Late Jurassic 'Malaya orogen', connecting W Borneo with E Burma through Malaya, with tin, gold and bauxite; (2) Cretaceous 'Sumatra orogen' (Sumatra-Java- SE Borneo), with Au-Ag-bearing base metals in Sumatra, iron laterites and diamond-gold placers in Borneo (3) M Miocene 'Sunda orogen' from W Burma through inner Sunda islands to W arc of Sulawesi, with epithermal Au-Ag-and Mn-ores; (4) Late Cretaceous- M Miocene 'Moluccas orogen' through outer Sunda islands and E arm of Sulawesi, with nickel and lateritic iron ores on peridotites. Good maps of ore deposits)

Westerveld, J. (1952)- Phases of mountain building and mineral provinces in the East Indies. Repts. 18th Sess. Int. Geological Congress, Great Britain 1948, Sect. 1, 13, p. 245-255.

(Abbreviated, English version of Westerveld (1949))

Wheeler, P. & N. White (2000)- Quest for dynamic topography: observations from Southeast Asia. Geology 28, 11, p. 963-966.
(Absence of measurable dynamic topography in SE Asia)

Wheeler, P. & N. White (2002)- Measuring dynamic topography: an analysis of Southeast Asia. Tectonics 21, 1040, doi:10.1029/2001TC900023, p. 1-24.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2001TC900023)
(Models of dynamic topography generated by subducting slabs, predict ~1-2 km of subsidence on wavelengths of 100- 1000 km. Existence of such subsidence important for understanding basin formation, relative sea level changes, etc. Analysis of SE Asia constrains maximum amplitude of dynamic subsidence to ~300m with range of 0-500 m, less than predicted. Distribution of anomalous subsidence suggests this may not be caused by dynamic topography and subducting slabs)

Whittaker, J.M., R.D. Muller, M. Sdrolias & C. Heine (2007)- Sunda-Java trench kinematics, slab window formation and overriding plate deformation since the Cretaceous. Earth Planetary Sci. Letters 255, p. 445-457.
(Plate motions and reconstructions of subducted ocean floor used to analyse subduction kinematics and observed upper plate strain since 80 Ma along Sunda-Java trench. Upper plate advance and retreat is main influence on upper plate strain, but subduction of large bathymetric ridges also significant. Compression in Sundaland back-arc region linked to upper plate advance. Sundaland backarc extension correlates with (a) retreat of upper plate, and (b) advance of upper plate with more rapid advance of Sundaland margin due to hinge rollback. Subduction of large bathymetric ridges causes compression in upper plate, especially Wharton Ridge subduction under Sumatra between 15-0 Ma)

Wichmann, A. (1890)- Bericht uber eine im Jahre 1888-89 im Auftrag der Niederlandischen Geographischen Gesellschaft ausgefuhrte Reise nach dem Indischen Archipel, Part 1: I. Java and II. Celebes. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2) 7, p. 907-994.
(Report on a 1888-1889 geographic reconnaissance trip to Indies Archipelago- part 1 (Java, Sulawesi) by first geology professor at University of Utrecht, A. Wichmann, supported by Netherlands Geographical Society. Mainly travel and scenery descriptions)

Wichmann, A. (1925)- Geologische Ergebnisse der Siboga Expedition. Siboga Monogr. LXVI, Brill, Leiden, p. 1-164.
(Geological results of rocks collected during the 1899-1900 Siboga marine expedition around Banda arc islands, etc. Schists-phyllites-amphibolites on small islands between Seram and Kai strikingly similar to Seram pre-Upper Triassic (Valk 1945, p. 38))

#Widiyantoro, S., J.D. Pesicek & C.H. Thurber (2011)- Complex structure of the lithospheric slab beneath the Banda arc, eastern Indonesia depicted by a seismic tomographic model. Research in Geophysics 1, 1, p. 1-6.
(online at: http://www.pagepress.org/journals/index.php/rg/article/view/rg.2011.e1/pdf)
(New seismic tomographic images of E Indonesia confirm previous observations of spoon-shaped structure of subducted slab beneath curved Banda arc. A slab lying flat on 660 km discontinuity beneath Banda Sea also well imaged. Data support scenario of Banda arc subduction rollback. Slab detachment beneath Buru also confirmed by new model)

Widiyantoro, S., J.D. Pesicek & C.H. Thurber (2011)- Subducting slab structure below the eastern Sunda Arc inferred from non-linear seismic tomographic imaging. In: R. Hall et al. (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geol. Soc. London, Spec. Publ. 355, p. 139-155.
(New seismic tomographic images across Sunda Arc from Java to Timor. Confirm previous observations of hole in subducted slab in upper mantle beneath E Java, which may be related to arrival of buoyant plateau near E Java at ~8 Ma. Images also suggest tear in slab below E-most part of Sunda arc, where downgoing slab is deflected in mantle transition zone, possibly related to arc-continent collision around Timor at ~3 Ma)

Widiyantoro, S. & N.T. Puspito (1998)- Tomografi waktu tempuh gelombang S dan struktur 3-D zona penunjaman di bawah Busur Sunda. J. Matematika Sains 3, 2, p. 97-104.
(online at: http://journal.fmipa.itb.ac.id/jms/article/viewFile/48/43)
('S-wave travel time tomography and 3-D structure of the subduction zone beneath the Sunda Arc'. Tomographic imaging using S-wave traveltime show 3-D mantle structure below Sunda arc subduction zone. Lithospheric slab penetrates into lower mantle beneath Sunda arc. Under Sumatra deep slab may be detached from seismogenic slab, under Java slab in upper mantle is necking)

Widiyantoro, S. & R. van der Hilst (1996)- Structure and evolution of subducted lithosphere beneath the Sunda arc, Indonesia. Science 271, p. 1566-1570.
(Tomographic imaging reveals seismic anomalies below Sunda island arc, suggesting lithospheric slab down to at least 1500 km. Sunda slab forms E end of deep anomaly associated with past subduction of Mesozoic Tethys Ocean. Lithospheric slab continuous feature from surface to lower mantle below Java, with local deflection where slab continues into lower mantle. Deep slab seems detached from upper mantle slab beneath Sumatra)

Widiyantoro, S. & R. van der Hilst (1997)- Mantle structure beneath Indonesia inferred from high-resolution tomographic imaging. Geophysical J. Int. 130, p. 167-182.
(online at: https://academic.oup.com/gji/article-pdf/130/1/167/6033214/130-1-167.pdf)
(Tomographic inversions give images of subducted slabs. Beniof zone steep (60°N) below Java, gently dipping at 60° W below E Banda Arc. Sunda Arc slab below 300 km looks detached in Sumatra, possibly also in Java)

Wiyanto, B., Sulistiyono, T. Junaedi & S. Hadipanjoyo (2009)- The re-analysis of the mature western area of Indonesian Tertiary basins for finding additional oil and gas resources. Lemigas Scientific Contr. 32, 1, p. 45-55.

Wikarno, R., T. Hardjono & D.S. Graha (1993)- Distribution of radiometric ages in Indonesia. 1:5,000,000. map. Geol. Res. Dev. Centre (GRDC), Bandung.

Wilson, P., B.A.C. Ambrosius, R. Noomen, D. Angermann, P. Wilson, M. Becker, E. Reinhart, A. Walpersdorf & C. Vigny (1999)- Observing plate motions in S.E. Asia: Geodetic results of the GEODYSSEA project. Geophysical Research Letters 26, 14, p. 2081-2084.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999GL900395/pdf)
(Brief review of geodetic results and precision of 1994-1998 GPS project with 42 observation stations across SE Asia. Sundaland block does move E relative to stable Eurasian plate. Island of Biak moved >1 m horizontally due to two heavy earthquakes in 1996. Etc.)

Wilson, P. & G.W. Michel (1998)- The geodynamics of S and SE Asia (GEODYSSEA) Project. GeoForschungs Zentrum Potsdam, Scient. Techn. Report 98/14, p. 1-359.

Wilson, P., J. Rais & The GEODYSSEA project (1998)- An investigation of the geology and geodynamics of South and Southeast Asia. In: P. Wilson, G.W. Michel (eds.) The geodynamics of S and SE Asia (GEODYSSEA) Project, Scientific Techn. Report STR, 98/14, p. 9-27.

Wilson, P., J. Rais, C. Reigber, E. Reinhart, B.A.C. Ambrosius, X. Le Pichon et al. (1998)- Study provides data on active plate tectonics in Southeast Asia Region. AGU EOS Transactions 79, 45, p. 545-549.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/98EO00398/epdf)
(On GEODYSSEA Geodynamics of SE Asia GPS project)

Wing Easton, N. (1921)- Het ontstaan van den Maleischen archipel in het licht van Wegenerôs hypothesen. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 38, p. 484-512.
('The origin of the Malay Archipelago in the light of Wegener's hypotheses'. Early paper in support of Wegener's continental drift theory. Major differences in geology between W and E part of 'Malay Archipelago' lend support to model of series of drifing continental plates, with E Indonesian islands derived from Australia)

Wing Easton, N. (1921)- On some extensions of Wegener's hypothesis and their bearing upon the meaning of the terms geosynclines and isostasy. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie 5, p. 113-133.
(General discussion of Wegener's continental drift theory, with few references to W Borneo geology. Mainly of historic interest, showing early support for Wegener in the Netherlands Indies)

Wirakusumah, A.D. (2008)- Tectonics and geothermal potential of Indonesia. In: J.A. Katili et al. (eds.) Tectonics and resources of Central and SE Asia (Halbouty volume), Pusat Survei Geol., Bandung, Spec. Publ. 34, p. 139-150.
(251 geothermal fields identified in Indonesia. 80% can be tied to volcanic processes, in four volcanic arcs)

Wiryosujono, S. & S. Tjokrosapoetro (1978)- Ophiolites in Eastern Indonesia. In: P. Nutalya (ed.) Proc. 3rd Regional Conf. Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, p. 641-651.
(Most or all mafic-ultramafic assemblages in E Indonesia may be regarded as ophiolites, but complete suites only on Timor and E Sulawesi. W Timor ophiolites limited to Mutis Zone, where low-angle overthrusts of allochthonous units commonly have sheared/ serpentinized ultramafics at base. Overlying ultramafic base are metamorphics and Permian- Triassic limestones associated with volcanics that probably developed on ancient seamounts. Two parallel ophiolite belts in W Papua, where N-dipping subduction zone at N margin of Australian Plate during Late Cretaceous- Eocene changed to S-dipping subduction in M-L Miocene and later)

Witoelar Kartaadiputra, L., Z. Ahmad & A. Reymond (1982)- Deep-sea basins in Indonesia. Proc. 11th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 1, p. 53-81.

Wood, B.G.M. (1985)- The mechanics of progressive deformation in crustal plates- a working model for Southeast Asia. Bull. Geol. Soc. Malaysia 18, p. 55-99.
(online at: www.gsm.org.my/products/702001-101144-PDF.pdf)
(Model for Tertiary deformation of SE Asian plates, linking Wrench Tectonics and Plate Tectonics. Irian shear system, Sabah shear system, Trans-Borneo shear system, etc. Back-arc basins form along margins of major continental plates where there is large component of strike-slip movement due to oblique plate convergence)

Yang, T., M. Gurnis & S. Zahirovic (2016)- Mantle-induced subsidence and compression in SE Asia since the Early Miocene. Geophysical Research Letters 43, 5, p. 1901-1909.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016GL068050)
(Rift basins developed extensively across Sundaland since Eocene. Starting in E Miocene, basins in S Sundaland experienced poorly understood, widespread synchronous compression (inversion) and marine inundation, despite large drop in global sea level. Models suggest slab stagnates in transition zone beneath SE Asia before Miocene, but penetrated through 660 km mantle discontinuity during E Miocene and formed slab avalanche event, causing large-scale marine inundation, compression and basin inversion across S Sundaland (poor fit between subsidence predition model and observed subsidence?; also, most or all Sundaland basins timing of early inversion and inundation not synchronous?; JTvG))

Yokoyama, T. & S. Nishimura (1981)- Results of age determination of Neogene rocks in Indonesia. Proc. 4th Regional. Conf. Geology and Mineral Energy Res. Southeast Asia (GEOSEA IV), Manila 1981, p. 239-244.

Yong, C.Z., P.H. Denys & C.F. Pearson (2017)- Present-day kinematics of the Sundaland plate. J. Applied Geodesy 11, 3, p. 169-177.

Zimmermann, S. & R. Hall (2014)- Provenance of Mesozoic sandstones in the Banda Arc, Indonesia. Proc. 38th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA14-G-301, 13p.
(Triassic and Jurassic sandstones from outer Banda Arc islands Timor, Babar and Tanimbar texturally immature, with volcanic quartz. Heavy minerals mainly from acidic igneous and metamorphic rocks and also ultramafic material. Zircon populations similar to Triassic sandstones of Birds Head, not nearby Australian continent. Cretaceous sandstones from Sumba, E Timor and Tanimbar with zircons suggesting reworking of Triassic and Jurassic sediments, but also Jurassic and Cretaceous zircons. These represent fragments rifted

from Australian margin in Late Jurassic and added to SE Asia in Late Cretaceous which record volcanic activity associated with rifting and accretion to active Sundaland margin)

Zimmermann, S. & R. Hall (2016)- Triassic and Jurassic sandstones in the Banda Arc: provenance and correlations with the Australian NW Shelf. Proc. 40th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA16-77-G, 18p.
(Most Triassic-Jurassic sandstones of Banda Arc between Timor and Tanimbar quartz-rich and of recycled origin and/or continental affinity, but commonly texturally immature and with volcanic quartz and lithics. Heavy mineral assemblages dominated by rounded stable minerals, but also angular grains and origin from acid igneous and metamorphic sources. Detrital zircon ages Archean-Mesozoic, suggesting source mainly from Birds Head/ Sula Spur, W and C Australia in Triassic. In Jurassic new local sources close to Timor and recycled NW Shelf material. Tanimbar Islands and Babar sediment came from both Australian continent and Birds Head. Sandstones in Timor dominant acid igneous signature in E and metamorphic sources in W (NB: ignoring key papers on similar topic by Ely 2009, 2014, Zobell 2007, Kwon et al. 2014, JTvG))

Zimmermann, S. & R. Hall (2016)- Provenance of Triassic and Jurassic sandstones in the Banda Arc: petrography, heavy minerals and zircon geochronology. Gondwana Research 37, p. 1-19.
(Same as Zimmermann and Hall 2016, above)

Zwierzycki, J. (1925)- Overzicht der Triasformatie in Nederlandsch Indie. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie, 8 (Verbeek volume), p. 633-648.
('Overview of the Triassic formations in Indonesia'. Lower- Middle Triassic found only on Timor; U Triassic present on Savu/ Roti, Timor, Leti/Babar, Ceram, Ambon, Misool, Buru, Buton, Borneo, Lingga, Sumatra and Malay Peninsula. Everywhere in Indonesia U Triassic developed in 'Alpine facies'. With one overview map)

Zwierzycki, J. (1928)- The stratigraphy of the coal and oil fields in the Netherlands East Indies. Proc. 3rd Pan-Pacific Science Congress, Tokyo 1926, 2, p. 1572-1593.

Zwierzycki, J. (1930)- Toelichting bij de geotektonische kaart van Nederlandsch-Indie. Jaarboek Mijnwezen Nederlandsch-Indie 58 (1929), Verhandelingen, p. 347-371.
('Explanatory notes of the geotectonic map of the Netherlands East Indies'. With map at scale 1:5,000,000. Assumes all metamorphic rocks are Paleozoic or older and maps limited number of 'orogenic periods':mid-Cretaceous (Sumatra), base Eocene?, Miocene (East), Late Pliocene (West part of archipelago))

I.2. SE Asia Regional Geology, Tectonics, Paleobiogeography

Achache, J., A. Abtout & J.J. Mouel (1987)- The downward confirmation of Magsat crustal anomaly field over Southeast Asia. J. Geophysical Research 92, B11, p. 11584-11596.

Achache, J., V. Coutillot & J. Besse (1983)- Paleomagnetic constraints on the Late Cretaceous and Cenozoic tectonics of Southeast Asia. Earth Planetary Sci. Letters 63, p. 123-136.
(Cretaceous- Cenozoic paleomagnetic data show negligible rotation of S China and CW rotation of Indochina, consistent with Tapponnier India indentation model. Malaya and Borneo data can be reconciled with model, but less straightforward. Large CCW rotation of S Tibet implies rotation with India during collision. M Cretaceous reconstruction of S margin of Asia shows continuity of geological features in Tibet and Indochina, with active subduction of Indian plate oceanic crust taking place to S at subtropical latitudes)

Acharyya, S.K. (1998)- Break-up of the greater Indo-Australian continent and accretion of blocks framing South and East Asia. J. Geodynamics 26, 1, p. 149-170.
(Plate tectonic history of SE Asia, with emphasis on India-Andaman region. Tibetan and 'Sibumasu' continental blocks rifted from N margin of Gondwanan Indo-Australia in Permian; IndoBurma-Andamans, Sikuleh, Lolotoi micro-continents in Late Jurassic. Tibetan and Sibumasu blocks drifted N in M-L Permian, opening Neo-Tethys. Indian and Australian continents separated in Cretaceous opening up Indian Ocean and closing Tethyan ocean. Etc.. Ophiolite trail on IBA does not represent E suture of Indian continent. Convergence between Australian continent and Indonesian Arc emplaced Lolotoi continental rocks. Maubisse exotic blocks and ophiolitic rocks as nappes over Timor shelf, which possibly remained attached to Australian continent.)

Acharyya, S.K. (2000)- Break up of Australia-India-Madagascar Block, opening of the Indian Ocean and continental accretion in Southeast Asia with special reference to the characteristics of the peri-Indian collision zones. Gondwana Research 3, p. 425-443.
(Tibetan and Sibumasu- W Yunnan continental blocks were located near proto-Himalayan part of Indian continent, rifted and drifted from N margin of E Gondwana continent in Late Paleozoic. Indo-Burma-Andaman, Sikule and Lolotoi blocks rifted and drifted from same margin in Late Jurassic, followed by break-up of Australia-India-Madagascar continental block in Cretaceous)

Ager, D.V.A. & D.L. Sun (1988)- Distribution of Mesozoic brachiopods on the northern and southern shores of Tethys. Palaeontologia Cathyana 4, p. 23-51.
(Late Triassic brachiopod Misolia widely distributed in S Tethys; recorded from Middle East to E Indonesia (Misool, Timor, Seram). Halorella/ Timorhynchia more typical of Late Triassic northern Tethys margin))

Ahmad, S., W. Jalal, F. Ali, M. Hanif, Z. Ullah, S. Khan, A. Ali, I.U. Jan & K. Rehman (2015)- Using larger benthic foraminifera for the paleogeographic reconstruction of Neo-Tethys during Paleogene. Arabian J. Geosciences 8, 7, p. 5095-5110.
(Comparison of Paleogene larger foraminifera from E part of NeoTethys in Kohat Basin of Pakistan compared with W, C Neo-Tethys to establish Paleogene migration pathways in Neo-Tethys. LBF species mostly confined to blocks derived from Gondwana (Iran, Iraq, Pakistan, India, Indonesia) and Laurasia (Italy, France, Spain), with only few on margin of Gondwanan continents (Oman). Includes brief review of Indonesian LBF)

Ali, J.R. (2006)- Biogeographical and geological evidence for a smaller, completely-enclosed Pacific basin in the Late Cretaceous: a comment. J. Biogeography 33, 9, p. 1670-1674.
(Critical discussion of McCarthy 2005 paper that describes Pacific history in expanding earth model))

Ali, J.R., J.C. Aitchison, H.M.Z. Cheung, S.S.Y. Chik & Y. Sun (2012)- Late Paleozoic development of Gondwana: detachment of the >13,500-km-long Cimmerian super terrane and its drift to Asia. Proc. First Int. Symposium of IGCP-589, Xi'an, China 2012, Acta Geologica Sinica 33, Suppl. 1, 2p. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/pdf/02-ALI%20Jason.pdf; Presentation at http://rwg-tag.bravehost.com/Conferences/geocon/ppt/1120-1140%20Ali.pdf)

(Cimmerian terrane almost unbroken chain stretching >13500 km, from S Europe, via Middle East, Afghanistan, Tibet, SW China, Myanmar to W Indonesia. Example of 'sliver terrane' dwarfing other examples like Palawan Block in W Philippines and Lord Howe Rise in Tasman Sea. Dispersal from Gondwana in E Permian. Sibumasu lay offshore of Australia; Qiangtang and Lhasa off Greater India- SE Arabia)

Archbold, N.W. (1983)- Permian marine invertebrate provinces of the Gondwanan realm. Alcheringa 7, p. 59-73.
(Permian chonetidine brachiopods allow distinction of five Permian Gondwanan faunal provinces: Andean, Paratinan, Austrazean (E Australia- New Zealand), Westralian (W Australia) and Cimmerian (Cimmerian terranes, from Tunisia, Himalayas, Thailand, Sumatra, Leti to W Papua). With description of Waterhouseiella n.gen. for Waagenites speciosus)))

Archbold, N.W. (1987)- South-western Pacific Permian and Triassic marine faunas: their distribution and implications for terrane identification. In: E.C. Leith & E. Scheibner (eds.) Terrane accretion and orogenic belts, American Geophys. Union (AGU), Geodyn. Ser. 19, p. 119-127.
(Three provinces of SW Pacific Permian faunas: (1) Cimmerian (Arabia to Irian Jaya, Timor: cold earliest Permian with bivalve Eurydesma, etc., warm-tropical later in E Permian), (2) Westralian (cold earliest Permian followed by temperate faunas, with tropical elements only in Late Permian) and (3) Austrazean (E Australia- New Zealand, New Caledonia) cold and cool temperate conditions throughout Permian). Marine Triassic faunas two provinces: (1) Tethyan- cosmopolitan, (2) cool Maori Province in New Zealand (not including Torlesse))

Archbold, N.W. (1998)- Correlations of Western Australian Permian and Permian Ocean circulation patterns. Proc. Royal Soc. Victoria 110, p. 85-106.

Archbold, N.W. (1999)- Permian Gondwanan correlations: the significance of the western Australian marine Permian. J. African Earth Sci. 29, 1, p. 63-75.
(Conodonts, fusulinid foraminifera and ammonoids, commonly used for Permian correlations, are absent or rare in Gondwanan marine sequences. Marine faunas of Permian exhibit pronounced provincialism. W Australia marine sections 18 brachiopod zones and offer correlation interface between new global standard and extensive Permian sequences of Gondwana)

Archbold, N.W. (2000)- Palaeobiogeography of the Australasian Permian. In: A.J. Wright et al. (eds.) Palaeobiogeography of Australasian faunas and floras, Mem. Assoc. Australasian Palaeontologists (AAP) 23, p. 287-310.

Archbold, N.W. (2001)- Pan-Gondwanan, Early Permian (Asselian-Sakmarian-Akastinian) correlations. In: R.H. Weiss (ed.) Contributions to Geology and Paleontology of Gondwana in honour of Helmut Wopfner, Cologne 2001, p. 29-39.
(Correlation tables of E Permian formations and faunas from Gondwanan and peri-Gondwanan regions. Incl. Malay Peninsula and Timor Somohole ammonoid fauna (E Sakmarian?) and Bisnain brachiopod fauna (Late Sakmarian?)

Archbold, N.W. (2001)- Wallace lines in eastern Gondwana: palaeobiogeography of Australasian Permian brachiopoda. In: I. Metcalfe, J.M.B. Smith et al. (eds.) Faunal and floral migrations and evolution in SE Asia-Australasia, Balkema, Lisse, p. 73-83.
(Australian continent was major component of NE Gondwana in Permian. Surrounding what is now Australia, were additional elements of NE Gondwana that are now incorporated into New Zealand, New Caledonia, New Guinea, Timor, SE Asia, Himalaya and S Tibet. Pronounced provincialism of global marine faunas in Permian. Brachiopoda can be used to define Westralian and Austrazean provinces)

Archbold, N.W. (2002)- Peri-Gondwanan Permian correlations: the Meso-Tethyan margins. In: M. Keep & S.J. Moss (eds.) The sedimentary basins of Western Australia 3, Proc. West Australian Basins Symposium, Perth 2002, p. 223-240.

(Permian of 16 regions of NE Gondwana compared with Australian continent. Paleoclimatic changes and tectonic events: (1) Asselian- E Artinskian change from cold to temperate environments, associated with basaltic volcanism and initial rifting of peripheral N Gondwanan margin; (2) Late Artinskian-Kungurian warming with onset of carbonate deposition in several Cimmerian terranes. Basaltic volcanism in several terranes indicative of rifting and opening of Meso-Tethys; (3). Roadian (Late Ufimian) and (4) Wordian-Capitanian: widespread, subtropical, marine carbonates on Cimmerian blocks as they drifted N and on N parts of Meso-Tethys S margin. Equivalent carbonates in subsurface W Australia. Andesitic volcanism in E Australia; (5) Wuchiapingian: marine transgressions extending into NW basins of Australia; (6) Changhsingian: minor marine transgressive events in Trans-Himalaya with Selong section of Tibet most complete Permo-Triassic for S Meso-Tethys margin)

Archbold, N.W., C.J. Pigram, N. Ratman & S. Hakim (1982)- Indonesian Permian brachiopod fauna and Gondwana-South-East Asia relationships. Nature 296, p. 556-558.
(First description of late E Permian articulate brachiopods in Birds Head. Assemblage similar to Thailand Rat Buri Limestone, suggesting geographical proximity of Thailand and Irian Jaya in E Permian)

Archbold, N.W. & G.R. Shi (1995)- Permian brachiopod faunas of Western Australia: Gondwanan-Asian relationships and Permian climate. J. Southeast Asian Earth Sci. 11, 3, p. 207-215.
(W Australian Permian brachiopod faunas mixture of Gondwanan, endemic Westralian and Asian (Tethyan) genera. Presence of Tethyan genera largely temperature dependent; no apparent geographical barriers to migration of such genera into intracratonic basins of W Australia. Paleotemperature curve indicates peak warm conditions in Sterlitamakian and Late Baigendzhinian and subtropical conditions in Dzhulfian)

Archbold, N.W. & G.R. Shi (1996)- Western Pacific Permian marine invertebrate palaeobiogeography. In: Z.X. Li, I. Metcalfe & C.M. Powell (eds.) Breakup of Rodinia and Gondwanaland and assembly of Asia, Australian J. Earth Sci. 43, 6, p. 635-641.
(Permian of W Pacific 4 provinces for Asselian-Tastubian (Indoralian, Himalayan, Cathaysian, Verkolyma), 6 for Sterlitamakian-Aktastinian (Austrazean, Westralian, Cimmerian, Cathaysian, Sino-Mongolian, Verkolyma), 7 for Baigendzhinian- E Kungurian (Austrazean, Westralian, Cimmerian- with Sibumasu and Himalayan subprovinces- Cathaysian, Sino-Mongolian, Verkolyma) and 3 for Kazanian-Midian (Austrazean, Cathaysian, Verkolyma). Changing pattern of provincialism best understood in terms of evolution of Sino-Mongolian Sea in N and rift-drift history of Cimmerian continental blocks in S, and climate amelioration during Permian)

Arias, C. (2006)- Northern and Southern Hemispheres ostracod palaeobiogeography during the Early Jurassic: possible migration routes. Palaeogeogr. Palaeoclim. Palaeoecology 233, p. 63-95.
(Australian E Jurassic ostracod faunas similar to W Tethyan and C European assemblages, probably indicating communication route along western Tethys, aided by action of western currents)

Asama, K. (1976)- *Gigantopteris* flora in Southeast Asia and its phytopalaeogeographic significance. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 17, p. 191-207.
(Gigantopteris flora is typical Cathaysian flora, best developed in N and NE China and Korea, but also in Yunnan and extending S to Malay Peninsula (Johore). Gigantopteris species described from E Permian Jambi flora of W Sumatra by Jongmans & Gothan 1935 differ from typical Gigantopteris flora. Djambi flora may still belong to Cathaysian flora, but probably older than typical Gigantopteris flora. W New Guinea Permian flora most likely part of Glossopteris flora)

Asama, K. (1984)- *Gigantopteris* flora in China and Southeast Asia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 25, p. 311-323.
(Mainly on classification and evolution of 'Cathaysian' Permian Gigantopteris flora. C Sumatra Permian Jambi flora typical Asian Gigantopteris flora, not Gondwanan Glossopteris flora)

Audley-Charles, M.G. (1983)- Reconstruction of eastern Gondwanaland. Nature 306, p. 48-50.
(Model of E Gondwanaland on basis of distribution of floras and faunas, lithofacies patterns and identification of Triassic magmatic arc that characterized E margin of Gondwanaland. Continental fragments that rifted from

N Australia-New Guinea in Jurassic identified as S Tibet-Burma-Thailand-Malaya and Sumatra. Sumatra attached to New Guinea through Triassic. Original site of deposition of'Maubisse' subtropical Permian limestones and tropical Late Triassic limestones, overthrust onto N margin of Australia in late Cenozoic collision, is located in this greater Gondwanaland)

Audley-Charles, M.G. (1988)- Evolution of the southern margin of Tethys (North Australia region) from Early Permian to Late Cretaceous. In: M.G. Audley-Charles & A. Hallam (eds.) Gondwana and Tethys. Geol. Soc., London, Spec. Publ. 37, p. 79-100.
(online at: http://searg.rhul.ac.uk/pubs/audley-charles_1988%20N%20Australia%20evolution.pdf)
(Review of Mesozoic stratigraphies of Banda terranes and Permo-Carboniferous- Cretaceous paleogeography. Mid-Permian rift event removed continental blocks now in Asia from Gondwana. Present NW Australia- New Guinea margin formed in Jurassic with breakup of S. Tibet/Burma/Malaya/ W and E Borneo/Sumatra/W Sulawesi/ Banda allochthons. E Sulawesi/ Banggai-Sula/ Kemum still part of N Guinea margin in Early Cretaceous. Margin E of Scott Plateau modified by Tertiary collisions with arc systems)

Audley-Charles, M.G., P.D. Ballantyne & R. Hall (1988)- Mesozoic-Cenozoic rift-drift sequence of Asian fragments from Gondwanaland. Tectonophysics 155, p. 317-330.
(online at: http://searg.rhul.ac.uk/pubs/audley-charles%20et%20al%201988.pdf)
(Reconstruction of continental blocks dispersal from E Gondwanaland from Latest Jurassic- Late Miocene. Burma-Malaya-Sumatra rifted off New Guinea in Jurassic and colliding with SE Asia in Late Cretaceous (clearly too late; JTvG), etc.)

Audley-Charles, M.G. & R. Harris (1990)- Allochthonous terranes of the Southwest Pacific and Indonesia. Philos. Trans. Royal Soc. London, A 331 (1620), p. 571-587.
(Mesozoic breakup of Gondwana and subsequent collisional events led to formation and emplacement of allochthonous terrranes in fold-thrust mountain belts. Many allochthonous terranes of SW Pacific and E Indonesia accreted during last 3 Ma))

Audley-Charles, M.G. & R. Harris (1991)- Allochthonous terranes of the Southwest Pacific and Indonesia. In: J.F. Dewey, I.G. Gass et al. (eds.) Allochthonous terranes, Cambridge Unversity Press, Cambridge, p. 115-127.
(Same paper as Audley-Charles & Harris (1990) above)

Baumgartner, P.O., P. Bown, J. Marcoux, J. Mutterlose et al. (1992)- Early Cretaceous biogeographic and oceanographic synthesis of Leg 123 (Off Northwestern Australia). Proc. Ocean Drilling Program (ODP), Scient. Results 123, p. 739-758.
(Neocomian fossil record off NW Australia important southern high-latitude affinities and weak Tethyan influence. Pelagic radiolarian chert and nannofossil limestone dominant in Tethyan Lower Cretaceous, but only minor lithologies in Exmouth-Argo sites, suggesting Argo Basin not part of Tethys Realm)

Beckinsale, R.D. (1979)- Granite magmatism in the tin belt of South-East Asia. In: M.P. Atherton & J. Tarney (eds.) Origin of granite batholiths: geochemical evidence, Shiva Publ. Ltd, Kent, p. 34-44.

Ben-Avraham, Z. (1978)- The evolution of marginal basins and adjacent shelves in East and Southeast Asia. In: S. Uyeda (ed.) Active plate boundaries of the Western Pacific, Tectonophysics 45, p. 269-288.
(In Mesozoic W Pacific Ocean and E Indian Ocean were parts of Tethys Sea, moving N relative to Antarctica, causing E-W Mesozoic ridge system, E-W trending magnetic anomalies and N-S transform faults. In Late Cretaceous-Eocene segments of spreading ridge gradually submerged at trenches to N, causing gradual change in direction of Pacific plate motion, separating Pacific and E Indian Ocean plates. Only remnant of Mesozoic ridge system today at W Philippine Basin)

Berry, W.B.N. & A.J. Boucot (1972)- Correlation of the Southeast Asian Silurian rocks. Geol. Soc. America (GSA), Spec. Paper 137, p. 1-35.

Besse, J. & V. Courtillot (1988)- Paleogeographic maps of the continents bordering the Indian Ocean since the Early Jurassic. J. Geophysical Research 93, B10, p. 11791-11808.
(Plate reconstructions primarily driven by paleomagnetism)

Bird, P. (2003)- An updated digital model of plate boundaries. Geochem. Geophys. Geosystems 4, 3, 1027, p. 1-52.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2001GC000252/epdf)
(Global plate boundaries, showing 14 larger plates (incl. Australia, Eurasia, Pacific, Philippine Sea) and 38 small plates (in SE Asia-SW Pacific: Sunda, Burma, Molucca Sea, Banda Sea, Timor, Birds Head, Maoke, Caroline, Mariana, N Bismarck, Manus, S Bismarck, Solomon Sea, Woodlark, New Hebrides (Maoke Plate is newly-defined small tectonic plate in West Papua, underlying western Central Range/ Mamberamo area to Cenderawasih Bay)

Blendinger, W., W.M. Furnish & B.F. Glenister (1992)- Permian cephalopod limestones, Oman Mountains: evidence for a Permian seaway along the northern margin of Gondwana. Palaeogeogr. Palaeoclim. Palaeoecology 93, p. 13-20.
(Cephalopod limestones of M Permian (M Guadalupian, Wordian) age at base of Hawasina nappes in Oman Mts are condensed sequence on N side of Arabian platform (or allochthonous unit thrust onto N margin). Ammonoid and conodont faunas remarkably similar to W Mediterranean (Siclily Sosio Lst) and Timor, suggesting unrestricted faunal exchange in Permian seaway along pelagic N margin of Gondwana (or distal margins of Cimmerian terranes?; JTvG))

Bodet, F. & U. Scharer (2000)- Evolution of the SE Asian continent from U-Pb and Hf isotopes in single grains of zircon and baddeleyite from large rivers. Geochimica Cosmochimica Acta 64, p. 2067-2091.
(Three Paleoproterozoic crust-formation episodes in mainland SE Asia (2.5 Ga, 2.2-2.3 Ga and ~1.9 Ga), identified from zircons of Red River, Mekong, Salween and Irrawaddy Rivers)

Boucot, A. (2003)- Some thoughts about the Shan-Tai Terrane. In: N. Mantajit (ed.) Proc. Symposium on Geology of Thailand, Bangkok 2002, Dept. Mineral Resources, p. 4-13.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/2002/6368.pdf)
(Review of stratigraphy and fossils of Silurian- Permian of Shan-Tai (= Sibumasu) terrane of W Thailand. Rel. cool climate 'Gondwanan' faunas through E Permian. Includes carbonate-rich Ordovician, Silurian black graptolite shales, E Devonian carbonates and 'tentaculite' mudstones, E Permian pebbly mudstones, etc.)

Boucot, A.J. (2007)- What happens at the northern end of the Shan-Thai terrane, where does it go from there. In: W. Tantiwanit (ed.) Int. Conf. on Geology of Thailand: Towards sustainable development and sufficiency economy (GEOTHAIô07), Bangkok, Dept. Mineral Resources, p. 373-377.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/2007/12752.pdf)
(Scattered Cambrian- E Devonian lithofacies and biogeographic data from Himalayan area (Nepal, Xizang) consistent with Shan-Thai Terrane (= Sibumasu) having originally been E extension of former. E extension of S end of Shan-Thai Terrane in Sumatra is poorly known, with S half of New Guinea being a possibility)

Brandon-Jones, D. (2001)- Borneo as a biogeographic barrier to Asian-Australasian migration In: I. Metcalfe et al. (eds.) Faunal and floral migrations and evolution in SE Asia-Australasia. Balkema, Lisse, p. 365-372.

Brayard, A., G. Escarguel & H. Bucher (2007)- The biogeography of Early Triassic ammonoid faunas: clusters, gradients and networks. Geobios 40, p. 749-765.
(E Triassic ammonoid assemblages, incl. Timor, which is 'highly connected' with Afghanistan and S China, defining an equatorial tethyan group)

Brayard, A., G. Escarguel, H. Bucher & T. Bruhwiler (2009)- Smithian and Spathian (Early Triassic) ammonoid assemblages from terranes: paleoceanographic and paleogeographic implications. J. Asian Earth Sci. 36, p. 420-433.

(Cluster analysis of E Triassic ammonoid faunas. Timor grouped with Afghanistan, South China, Oman, Iran, etc., as S Tethyan cluster. (Very little detail on locations/ origin of samples; JTvG))

Brookfield, M.E. (1996)- Paleozoic and Triassic geology of Sundaland. In: M. Moullade & A.E.M. Nairn (eds.) The Phanerozoic geology of the world, 1, The Palaeozoic, B, Elsevier, Amsterdam, p. 183-264.

Brookfield, M.E. (1996)- Reconstruction of Western Sibumasu. In: J. Geology, Spec. Issue, Proc. Int. Symp. Geology of Southeast Asia and adjacent areas, Hanoi 1995, Geol. Survey of Vietnam B, p. 65-80.
(Core of Sibumasu terrane (Shan Plateau, Kanchanaburi, W Malaya) is S-facing Paleozoic passive margin, rifted off Gondwanaland in Permian and collided with Indochina in Triassic-E Jurassic. Equivalent of Qiantang Block of C Tibet)

Brookfield, M.E. & V.J. Gupta (1988)- The Devonian of Northern Gondwanaland: a Himalayan viewpoint and terrane analysis. In: N.J. MacMillan et al. (eds.) Devonian of the World, Proc. 2nd Int. Symposium on the Devonian System, Calgary, 1, Regional Syntheses, Canadian Soc. Petrol. Geol., Mem. 14, p. 579-589.
(Microcontinents that rifted off N Gondwana like Lut, Helmand, Nowshera, Karakorum, High Himalaya and Thai-Malaya terranes have Devonian stratigraphies indicating they were part of Gondwanaland in Devonian)

Buerki, S., F. Forest & N. Alvarez (2014)- Proto-South-East Asia as a trigger of early angiosperm diversification. Botanical J. Linnean Soc. 174, p. 326-333.
(online at: https://academic.oup.com/botlinnean/article/174/3/326/2416344)
(Angiosperms (flowering seed plants) originated abruptly in E Cretaceous (Hauterivian), followed by rapid diversification in Hauterivian-Aptian. Islands in SE Asia region today probably played major role in angiosperm diversification in Late Jurassic- E Cretaceous (but no discussion of support from actual fossil botanical records of SE Asia; HvG)

Buffetaut, E. (1981)- Elements pour une histoire paleobiogeographique du Sud-est Asiatique: l'apport des vertebres fossiles continentaux. Bull. Soc. Geologique France (7) 23, 6, p. 587-593.
('Elements for a paleobiogeographic history of SE Asia: the contribution of continental vertebrate fossils'. Incl. report of Jurassic fresh-water crocodilian Sunosuchus from NE Thailand, of Laurasian affinity)

Buffetaut, E. (1984)- The palaeobiogeographical significance of the Mesozoic continental vertebrates from South-East Asia. Mem. Soc. Geologique France, N.S., 147, p. 37-42.

Bunopas, S. & S. Khositanont (2004)- Did Shan-Thai twice marry Indochina and then India?: a review. Bull. Earth Sci. Thailand (BEST) 1, p. 1-27.
(Shan-Thai (= Sibumasu) and Indochina microcontinents migrated from W Australia since latest Devonian, to settle in Late Norian. During Late Triassic both microcontinents drifted up latitude and stayed in N Hemisphere. Pre-first continent-continent collision between Shan-Thai and Indochina occurred just under Equator as early as Early Triassic. Breakup of Pangea in Late Cretaceous time. At 45 Ma Himalayan extrusion, caused by 2nd continent-continent collision, began and have its paroxysm in M Miocene. Etc.)

Bunopas, S., P. Vella, H. Fontaine, S. Hada, C. Burrett, P. Haines, S. Potisat, T. Wongwanich, P. Chaodumrong, K.T. Howard & S. Khositanont (2001)- Growth of Asia in the Late Triassic continent- continent collision of Shan-Thai and Indochina against South China. Gondwana Research 4, 4, p. 584-585.
(Abstract only. Late Triassic (M-L Norian) continent-continent collision between Shan-Thai (=Sibumasu) and Indochina microcontinents resulted in formation of axial core of SE Asia. Continent-continent collision terminated marine environments between Shan-Thai - Indochina and S China. Lower-Middle Triassic volcanic arc-trench systems developed on E active margin of Shan-Thai W of Pha Som Suture zone from Nan-Uttaradit-Sra Kaeo and Bentong-Raub line. Etc.)

Bunopas, S., P. Vella, H. Fontaine, S. Hada, C. Burrett, P. Haines, S. Potisat, T. Wongwanich, P. Chaodumrong, K.T. Howard & S. Khositanont (2002)- Growing of Asia in the Late Triassic continent- continent collision of

Shan-Thai and Indochina against South China. In: N. Mantajit (ed.) Proc. Symposium on Geology of Thailand, Bangkok 2002, Dept. Mineral Resources, p. 129-135.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2002/6385.pdf)
(Extended version of Bunopas et al. 1991, Gondwana Research (2001). Collision of Sibumasu (Shan-Thai) and Indochina in late Norian terminatedPaleotethys in SE Asia, along suture zone from W Yunnan- Nan-Uttaradit-Sra Kaeo- Yala to Raub-Bentong at 23°N above Equator. Cenozoic CW rotation of Thailand of >30°)

Bunopas, S., P. Vella, H. Fontaine, S. Hada, C. Burrett, P. Haines, S. Potisat, T. Wongwanich, P. Chaodumrong, K.T. Howard & S. Khositanont (2002)- Shan-Thai and Indochina, Lower Paleozoic Gondwana derived paired microcontinents growing Pangea by first continent-continent collision in Late Norian with South China suffered second continent-continent collision of India to Asia. In: Geodynamic processes of Gondwanaland-derived terranes in East and Southeast Asia, their crustal evolution, emplacement and natural resources potential, Phitsanulok 2002, p. 120-133.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_3/2547/9535.pdf)

Buratti, N. & S. Cirilli (2007)- Microfloristic provincialism in the Upper Triassic Circum-Mediterranean area and palaeogeographic implication. Geobios 40, 2, p. 133-142.
(Two U Triassic (Carnian) palynoflora provinces: (1) Onslow of NW Australia (incl. European forms Camerosporites, Aulisporites, Enzonalasporites, Ovalipollis, Samaropollenites, Infernopollenites, Minutosaccus) and (2) Ipswich of S and E Australia. W Timor floras from U Triassic pelagic deposits placed in Onslow microflora. Suggests Onslow microflora assemblages, with minor variations, present from W Tethys to N Australian margin (W Timor))

Burollet, P.F. & C. Salle (1986)- Problemes tectoniques en Indonesie. In: P. Le Fort et al. (eds.) Evolution des domaines orogeniques d'Asie meridionale (de la Turquie à l'Indonesie) (Pierre Bordet Memorial Volume), Mem. Sciences de la Terre 47, Nancy, p. 113-127.
('Tectonic problems in Indonesia'. Brief review of tectonics of Indonesia, with more detail on Tanimbar- Kai islands)

Burrett, C.F. (1974)- Plate tectonics and the fusion of Asia. Earth Planetary Sci. Letters 21, p. 181-189.
(Early paper describing amalgamation of Asia. Nine blocks defined. Paleogeographical, paleontological and tectonic evidence suggest Asia did not fuse completely until well into Mesozoic)

Burrett, C., N. Duhig, R. Berry & R. Varne (1991)- Asian and South-western Pacific continental terranes derived from Gondwana, and their biogeographic significance. In: P.Y. Ladiges et al. (eds.) Australian biogeography, Australian Syst. Botany 4, 1, p. 13-24.
(Most small geological terranes in Indo-Pacific region rifted from Gondwana. Shan-Thai terrane rifted from Australia in Permian and collided with Indo-China in Triassic. Parts of Sumatra and Kalimantan may have rifted from Australia in Cretaceous and carried angiosperm flora N. Other terranes now in SE Asia and Pacific were part of Australian continent at various times in Cenozoic)

Burrett, C., J. Long & B. Stait (1990)- Early-Middle Palaeozoic biogeography of Asian terranes derived from Gondwana. In: W.S. McKerrow & C.R. Scotese (eds.) Palaeozoic palaeogeography and biogeography. Geol. Soc., London, Mem. 12, p. 163-174.
(Contiguity of Shan-Thai (=Sibumasu) Terrane and NW Australia suggested by faunal affinities in Late Cambrian trilobites, Ordovician molluscs, stromatoporoids, brachiopods and conodonts. Re-evaluation of E Paleozoic paleomagnetism places Shan-Thai against NW Australia. N China Block was next to N Australia/ New Guinea, rifted off in E Devonian or earlier. S China micro-vertebrates and conodonts suggest Shan-Thai still close to Australia in M Devonian)

Burrett, C. & B. Stait (1986)- Southeast Asia as a part of an early Palaeozoic Australian Gondwanaland. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geol. Soc. Malaysia 19, p. 103-107.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986009.pdf)

(Provenance of Paleozoic sediments from Thailand and Malaysia and trilobite- mollusc studies suggest Sibumasu block was adjacent to NW Australia in Ordovician. Probable Upper Carboniferous glacial sediments in Thailand and Malaysia, with boulders from cratonic source and detrital diamonds. Early Carboniferous breakup most likely. Collision with Indochina Block in Triassic)

Burrett, C.F. & B. Stait (1986)- Southeast Asia as a part of an Ordovician Gondwanaland- paleogeographic test of a tectonic hypothesis. Earth Planetary Sci. Letters 75, p. 184-190.
(Upper Cambrian- Ordovician micro- and macrofaunas very close similarities between Thailand-Malaysia Sibumasu Block and NW Australia, suggesting E Paleozoic proximity)

Burrett, C., M. Udchachon & H. Thassanapak (2016)- Palaeozoic correlations and the palaeogeography of the Sibumasu (Shan-Thai) terrane - a brief review. Research and Knowledge 2, 2, p. 1-17.
(online at: https://rk.msu.ac.th/wp-content/uploads/2017/09/01-Clive-Burrett4-compressed.pdf)
(Review of Cambrian-Permian predominantly shelfal marine siliciclastics and carbonates of Sibumasu Terrane in NW Malaysia (Langkawi), S Thailand (Satun), Shan States of Myanmar and Baoshan Block of W Yunnan. Continuous platform sequences in W Sibumasu and deep-water shales and cherts in E Sibumasu, without significant unconformities. Silurian-Devonian faunas mainly peri-Gondwana distributions. Sibumasu part of Australia until E Permian breakup (oriented with Baoshan near Himalayan margin; Sumatra closer to West Papua). Late Triassic (late Norian?) collision with Indochina/Sukhothai Arc terrane)

Burrett, C., K. Zaw, S. Meffre, C.K. Lai, S. Khositanont, P. Chaodumrong, M. Udchachon, S. Ekins & J. Halpin (2014)- The conýguration of Greater Gondwana- evidence from LA ICPMS, U-Pb geochronology of detrital zircons from the Palaeozoic and Mesozoic of Southeast Asia and China. Gondwana Research 26, p. 31-51.
(Detrital zircon ages from Paleozoic-Mesozoic in Malaysia, Thailand, Laos, Vietnam, Cambodia and China, compared to zircon ages from Australia, Asia. Indochina and S China terranes and Tethyan Himalayas close to similar source areas. E Paleozoic paleobiogeographic data suggest N China was close to Gondwana, but not supported here. Similarity between Ordovician Tarutao Fm of Sibumasu and Tumblagooda Sst of W Australia and Tethyan Himalaya. Quartzite and granite clasts in Permian glaciomarine deposits of Sibumasu with age spectra similar to W and N Australia (incl. 1850 Ma Barramundi Orogeny). Triassic Lampang and Song Groups of N Thailand detrital zircons suggest Indochina terranes source for basins of Sukhothai Terrane)

Cai, F., L. Ding, A.K. Laskowski, P. Kapp, H. Wang, Q. Xu & L. Zhang (2016)- Late Triassic paleogeographic reconstruction along the Neo-Tethyan Ocean margins, southern Tibet. Earth Planetary Sci. Letters 435, p. 105-114.
(online at: https://manuscript.elsevier.com/S0012821X15007906/pdf/S0012821X15007906.pdf)
(Petrographic and detrital zircon analyses of U Triassic sandstones from N margin of India (Tethyan Himalaya Sequence, S Tibet) dominated by Indian-affinity Precambrian detrital zircons, but nearby areas with populations of Permian- E Jurassic (291-184 Ma) zircons for which there is no known Indian source, so probably derived from continental crustal fragments that were adjacent to NW margin of Australia. May be part of Late Triassic submarine fan along N Australian shelf, together with age-equivalent beds in W Sulawesi, Timor and W Papua with similar zircon age populations. U Triassic Mailonggang Fm from S margin of Eurasia (S Lhasa terrane) dominated by Permian zircons from proximal Lhasa terrane sources; differs from Tethyan Himalaya beds, suggesting separation from Greater India by Neo-Tethys Ocean)

Cai, J.X. & K.J. Zhang (2009)- A new model for the Indochina and South China collision during the Late Permian to the Middle Triassic. Tectonophysics 467, p. 35-43.
(Indochina and South China separated from Gondwana in Silurian Analysis of E Paleozoic suggests Indochina may be extended to include N Vietnam, part of Qinzhou tectonic zone and S Hainan Island (traditionally regarded as parts of S China). U Paleozoic turbidites and mid-oceanic ridge basalts along new Dian-Qiong suture illustrate ocean between Indochina and S China consumed by S-directed subduction under Indochina in Late Permian- M Triassic)

Cai, Z.R., J.Y. Xiang, Q.T. Huang, Z.X. Yin, Y.J. Yao, H.L. Liu & B. Xia (2016)- Textural and map contrasts of the subduction-collision boundary between the Philippine Arc and the Sunda margin. Arabian J. Geosciences 9, 4, p. 1-10.
(Review of active subduction-collision boundary between Philippine Arc and Sunda margin, from Taiwan, S along Manila Trench, through thrust fault zone of Mindoro, to Negros Trench at E edge of Sulu Sea, then through thrust fault zone of Zamboanga to Cotabato Trench at E side of Celebes Sea/ Sangihe Arc)

Campbell, H.J. & J.A. Grant-Mackie (2000)- The marine Triassic of Australasian and its interregional correlation. In: H. Yin et al. (eds.) Permian-Triassic evolution of Tethys and Western Circum-Pacific, Developments in palaeontology and stratigraphy 18, Elsevier, p. 235-255.
(Review of stratigraphy/ fauna of marine Triassic outcrops of E Indonesia, New Caledonia, Australia and New Zealand. Including brief summaries of PNG (Yuat River gorge argillites with Anisian ammonites), Misool, Seram, Buru (Norian- Rhaetian Fogi Beds with Misolia), Timor-Roti and SE Sulawesi-Buton (late Norian Monotis subcircularis in Winto beds). No maps, strat columns)

Capitanio, F.A. & A. Replumaz (2015)- Subduction and slab breakoff controls on Asian indentation tectonics and Himalayan western syntaxis formation. Geochem. Geophys. Geosystems 14, 9, p. 3515-3531.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/ggge.20171/pdf)
(On link between large-scale Asian continent deformations and Indian slab subduction and breakoff. Formation of C Asian intracontinental faulting, the Bangong-Red River Fault and Altyn Tagh fault followed successive Indian slab breakoff episodes

Caputo, M.V. & J.C. Crowell (1985)- Migration of glacial centers across Gondwana during Paleozoic era. Geol. Soc. America (GSA), Bull. 96, p. 1020-1036.

CCOP-IOC (1974)- Metallogenesis, hydrocarbons and tectonic patterns in Eastern Asia. Report of the IDOE Workshop on Tectonic Patterns and Metallogenesis in East and Southeast Asia, Bangkok 1973, UN Dev. Progr. (CCOP), Bangkok, CCOP Techn. Publ. 2, p. 1-158.
(online at: www.jodc.go.jp/info/ioc_doc/Workshop/015652eo.pdf)
(Overview of SE Asia tectonics and proposals by Katili et al. for SEATAR transect for future work)

CCOP, T. Sato and Working Group (2000)- Geotectonic map of East and Southeast Asia: sheets 4, 5 and 6. CCOP-CPCEMR Geotectonic map project. CCOP Tech. Bull. 27, p. 1-16.
(Geotectonic Map of E and SE Asia. Sheet 4: Philippines, Vietnam, S China, Sheet 5: Malaysia, W Indonesia, Sheet 6: E Indonesia)

CCOP, T. Sato and Working Group (2002)- Geotectonic map of East and Southeast Asia: sheets 1, 2, 3 and 8- second product of the CCOP-CPCEMR Geotectonic map project. CCOP Tech. Bull. 31, p. 1-13.
(Tectonic maps E and SE Asia: Sheet 1: Shikhote Alin, Korea, NE China, Japan), Sheet 2: C and S China, Taiwan, Ryukyu arcs), Sheet 3: S China, Indochina, Malaysia, Myanmar), Sheet 8: W Pacific Ocean. Also available in digital format)

Cesari, S.N. & C.E. Colombi (2015)- A new Late Triasssic phytogeographical scenario in westernmost Gondwana. Nature Communications, DOI: 10.1038/ncomms2917, 7p.
(Floral provincialism in S Hemisphere in Late Triassic characterized by Ipswich and Onslow provinces of E Gondwana here extended to NW Argentina. Previously considered part of Ipswich, but diagnostic Euramerican species in assemblages with Gondwanan taxa allows placing palynofloras in Onslow province)

CGMW/UNESCO (1986)- Metallogenic map of South and East Asia, Sheet 4 (1: 5M scale). Geol. Survey Japan.

Cecca, F. (1999)- Palaeobiogeography of Tethyan ammonites during the Tithonian (latest Jurassic). Palaeogeogr. Palaeoclim. Palaeoecology 147, p. 1-37.
(Focused on Western and CentralTethys; little or nothing on SE Asia/ Australia)

Chablais, J., R. Martini, E. Samankassou, T. Onoue & H. Sano (2009)- Microfacies and depositional setting of the Upper Triassic mid-oceanic atoll-type carbonates of the Sambosan accretionary complex (southern Kyushu, Japan). Facies 56, 2, p. 249-278.
(Sambosan U Triassic shallow-water limestones remnant of mid-oceanic atoll on seamount in Panthalassan Ocean, accreted along with deep-water ribbon-cherts rocks to E margin of Asia in Late Jurassic- E Cretaceous. Seventeen microfacies distinguished. Foraminifers (incl. Triasina hantkeni) indicate Late Carnian- Rhaetian age. Tethyan affinity of faunas suggests Sambosan seamount located in low- middle-latitude of S Hemisphere during Late Triassic)

Chaloner, W.G. & G.T. Creber (1988)- Fossil plants as indicators of Late Palaeozoic plate positions. In: M.G. Audley Charles & A. Hallam (eds.) Gondwana and Tethys, Geol. Soc., London, Spec. Publ. 37, p. 201-210.
(On latest Carboniferous and early Permian floral provinces. In SE Asia juxtaposition of Cathaysian (S China, Thailand, Malay Peninsula, Sumatra) and Gondwanan (India, Australia, New Guinea) floras)

Chaloner, W.G. & W.S. Lacey (1973)- The distribution of Late Palaeozoic floras. In: N.F. Hughes (ed.) Organisms and continents through time, Spec. Paper Palaeont. 12, p. 271-289.
(online at: www.palass.org/sites/default/files/media/publications/special_papers_in_palaeontology/number_12/spp12_pp271-290.pdf
(33 plant genera can be used to define four main Permian floral provinces)

Chandra, U. (1984)- Tectonic segmentation of the Burmese-Indonesian Arc. Tectonophysics 105, p. 279-290.
(Transverse boundary zones (North Andaman Boundary Zone, Sunda Boundary Zone) separate segments of Burmese-Indonesian volcanic arc)

Chatterjee, S. & S. Bajpai (2016)- Indiaộs northward drift from Gondwana to Asia during the Late Cretaceous-Eocene. Proc. Indian Nat. Science Academy 82, 3, Spec. Issue, p. 479-487.
(online at: https://insajournals.in/insaj/index.php/proceedings/article/view/225/125)
(Brief version of Chatterjee et al. 2017)

Chatterjee, S., C.R. Scotese & S. Bajpai (2017)-The restless Indian plate and its epic voyage from Gondwana to Asia: its tectonic, paleoclimatic, and paleobiogeographic evolution. Geol. Soc. America, Spec. Paper 529, p. 1-147.
(Review of tectonic evolution of India plate since breakup of Gondwana in Late Jurassic, partial isolation in E Cretaceous, collision with Kohistan-Ladakh arc at ~80 Ma (= continuation of Woyla Arc of W Sumatra?), Cretaceous- Paleogene boundary Shiva impact and Deccan volcanism. In Late Cretaceous (~67 Ma), Indian plate motion acceleration between two transform faults that facilitated N-ward movement, etc.)

Chen, H., S. Sun, J. Li, F. Heller, J. Dobson, M. Haag & K.J. Hsu (1993)- Early Triassic paleomagnetism and tectonics, South China. In: B.K. Tan et al. (eds.) 7th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA VII), Bangkok 1991, J. Southeast Asian Earth Sci. 8, p. 269-276.
(Paleomagnetic data from Lower Triassic limestones in S China support existence of four continental blocks, in E Triassic all scattered in E Paleotethys low latitude, separated by oceans: Yangtze, Xianggui, Cathaysia and Dongnanya (=S China Sea NW margin). Cathaysia block ~90° CW rotation. Permian on Hainan island ~25° CCW rotation)

Chen, Y., V. Courtillot, J.P. Cogne, J. Besse, Z. Yang & R. Enkin (1993)- The configuration of Asia prior to the collision of India: Cretaceous paleomagnetic constraints. J. Geophysical Research 98, B12, p. 21927-21941.
(Paleomagnetic data from C Asia show 1700±610 km of shortening of S Asia since Cretaceous absorbed by distributed deformation between S Tibet and Siberia craton, based on Cretaceous poles from Junggar, Tarim, Tibet, Indochina, S and N China and Mongolia blocks. Remarkable consistency between upper and lower Cretaceous results, suggesting Cretaceous time of little displacement Paleogeographic reconstruction of Asia in Cretaceous)

Chiu, J.M., B.L. Isacks & R.K. Cardwell (1991)- 3-D configuration of subducted lithosphere in the western Pacific. Geophysical J. Int. 106, p. 99-111.
(online at: https://academic.oup.com/gji/article/106/1/99/740584)
(Interesting 3-D displays of subducting slabs in W Pacific region (incl. Indonesia) (Benioff-Wadati zones of deep earthquake hypocenter distributions. Depth of deepest earthquakes decreases in W direction along Sunda Arc)

Chumakov, N.M. & M.A. Zharkov (2002)- Climate during Permian- Triassic biosphere reorganizations, 1: Climate of the Early Permian. Stratigraphy Geol. Correl. 10, 6, p. 586-602.

Chumakov, N.M. & M.A. Zharkov (2003)- Climate during Permian- Triassic biosphere reorganizations, 2. Climate of the Late Permian and Early Triassic: general inferences. Stratigraphy Geol. Correl. 11, 4, p. 361-375.

Cloetingh, S. & R. Wortel (1986)- Stress in the Indo-Australian plate. Tectonophysics 132, p. 49-67.
(Modeling of state of stress in Indo-Australian plate. Regional stress field along Sunda arc varies from compression seaward of and parallel to Sumatra trench to tension perpendicular to Java-Flores segment)

Cobbing, E.J., D.I.J. Mallick, P.E.J. Pitfield & L.H. Teoh (1986)- The granites of the Southeast Asian tin belt. J. Geol. Soc., London, 143, p. 537-550.
(Four granite provinces, each with its own pattern of cassiterite mineralization: (1) Main Range Province (Triassic), 2. Eastern Province, 3. Western (Peninsular Thailand-Burma) Province, 4. North Thailand Migmatitic Province. Peninsular Malaysia granites from Main Range and E Provinces two contrasted suites which correspond to I and S-types)

Cobbing, E.J. & P.E.J. Pitfield (1986)- South-East Asia granite project- Field report for Thailand 1985. British Geol. Survey, Overseas Report MP/86/16/R, p. 1-213.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1985/1633.pdf)

Cobbing, E.J., P.E.J. Pitfield, D.P.F. Darbyshire & D.I.J. Mallick (1992)- The granites of the South-East Asian tin belt. British Geol. Survey, Overseas Memoir 10, p. 1-369.
(online at: http://pubs.bgs.ac.uk/publications.html?pubID=B04056)
(Extensive study of granites in Malaysia, Indonesia, Thailand and Myanmar. Not all granites have age-equivalent volcanics. Distinct belt. In Malaysian segment Permo-Triassic- lower Jurassic Eastern Belt with tin deposits (incl. Bangka- Belitung calk-alkaline I-types in Indonesia) (mainly cassiterite-magnite skarns), while neighboring Central Belt more gold-bearing. Western Province Cretaceous granites with tin in S-type granites only. Rb-Sr ages for Bangka granites mainly ~220 Ma (213-229 Ma (Norian); in line with Priem and Bon (1982)). Some age results of 200 Ma, 251-252 Ma; Barber et al. 2005)

Cocks, L.R.M. & R.A. Fortey (1988)- Lower Palaeozoic facies and faunas around Gondwana. In: M.G. Audley Charles & A. Hallam (eds.) Gondwana and Tethys, Geol. Soc., London, Spec. Publ. 37, p. 183-200.
(Ordovician and Silurian paleogeographic maps, some with W Papua data control points)

Cocks, L.R.M. & T.H. Torsvik (2013)- The dynamic evolution of the Palaeozoic geography of eastern Asia. Earth-Science Reviews 117, p. 40-79.
(Paleogeographical reconstructions for 11 intervals from M Cambrian- end Permian through E Asia region, centred on continental blocks of N China, S China and Annamia (Indochina). Annamia and S China left Gondwana margin area together during Lower Devonian opening of Paleotethys Ocean, but shortly afterwards they separated into two, not to reunite until Triassic. Cambrian- Permian rocks in Japan largely represent active volcanic arcs which originally lay to SE of S China. Neotethys Ocean opened in M Permian, dividing Sibumasu and Tibetan terranes from Gondwana, and Palaeotethys Ocean started to close)

Copley, A., J.P. Avouac & J.Y. Royer (2010)- India-Asia collision and the Cenozoic slowdown of the Indian plate: Implications for the forces driving plate motions. J. Geophysical Research, Solid Earth, 115, 3, B03410, 14p.

(Plate motion of India changed dramatically between 50-35 Ma, with convergence between India and Asia dropping from 15 to 4 cm/yr, coincident with onset of India-Asia collision. Apparent relationship between plates velocities and length of subduction zones along boundaries, probably reflecting importance of slab pull as driving mechanism)

Copper, P. & C.R. Scotese (2003)- Megareefs in Middle Devonian supergreenhouse climates. Geol. Soc. America (GSA), Spec. Paper 370, p. 209-230.
(>7 Mid-Devonian 'Great Barrier Reefs', including S. China plate (Vietnam-Hunan, ~1700 km), E Australia-New Guinea (spottily preserved isolated platforms; ~2000 km) and Canning Basin (~400 km))

Crame, J.A. (1986)- Late Mesozoic bipolar bivalve faunas. Geol. Magazine 123, 6, p. 611-618.
(Bipolar bivalve genera probably existed through greater part of late Jurassic- Cretaceous, probably controlled by global climatic zonation. Examples of 'anti-tropical genera: Buchia s.l. and inoceramids (Retroceramus) in latest Jurassic, Aucellina in E Cretaceous, etc.)

Crowell, J.C. (1995)- The ending of the Late Paleozoic ice age during the Permian period. In: P.A. Scholle et al. (eds.) The Permian of Northern Pangea, Springer, Berlin, 1, p. 62-74.

Crowell, J.C. (1999)- Pre-Mesozoic ice ages: their bearing on understanding the climate system. Geol. Soc. America (GSA), Mem. 192, p. 1-106.
(Cenozoic Ice Age from ~43 Ma-Recent, preceded by warmer interval of ~70 My back into mid-Cretaceous time. Next older Mesozoic icy intervals are E Cretaceous (~105-140 Ma) and Jurassic (~160-175 Ma and ~188-195 Ma). Late Paleozoic Ice Ages waxed and waned between ~256-338 Ma. Iciness expanded during Late Devonian-E Carboniferous (353- 363 Ma). Ordovician-Silurian strong and short ice age between ~429-445 Ma. During Late Proterozoic-Cambrian, three or four ice ages (~520–950 Ma). At some localities glaciation occurred at low latitudes)

Cuneo, N.R. (1996)- Permian phytogeography in Gondwana. Palaeogeogr. Palaeoclim. Palaeoecology 125, p. 75-104.
(Review of Gondwanan phytogeogeographic units for five Permian time slices. Nothing on SE Asia)

Dagys, A.S. (1993)- Geographic differentiation of Triassic brachiopods. Palaeogeogr. Palaeoclim. Palaeoecology 100, p. 79-87.
(Maximum paleobiogeographic differention of Triassic brachiopods in Late Triassic, with at least five biochores: Boreal, N Tethyan, peri-Gondwanian, Notal or Maorian and E Pacific. E part of peri-Gondwana Tethys with Misolia, Timorhynchia)

Damborenea, S.E. (2002)- Jurassic evolution of Southern Hemisphere marine palaeobiogeographic units based on benthonic bivalves. Geobios 35, Suppl. 1, p. 51-71.
(Latest Triassic- earliest Cretaceous distribution of bivalves in S Hemisphere. Tethyan Realm with Australian unit restricted to Late Triassic. Late Jurassic Maorian Province extends to Antarctic and W Pacific localities incl. Timor, Sula, Buru, Seram, but overall endemism diminishes from Oxfordian to Tithonian-Berriasian. Oxfordian-Kimmeridgian Malayomaorica has Austral distribution, reaching Australia-New Guinea. Austral Province of Indo-Pacific Region (South Temperate) strongly developed at beginning of Cretaceous, incl. Australia, New Zealand, New Guinea)

Darbyshire, D.P.F. (1987)- Rb/Sr and Sm/Nd isotope studies of granites of Southeast Asia. Warta Geologi 13, p. 117-120.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1987003.pdf)
(Summary of British Geological Survey program of radiometric dating of SE Asia granites (see also Cobbing et al. 1992))

Delescluse, M. & N. Chamot-Rooke (2007)- Instantaneous deformation and kinematics of the India-Australia Plate. Geophysical J. Int. 168, 2, p. 818-842.

(Present-day deformation distributed around Afanasy Nikitin Chain in Central Indian Basin (CIB; shortening) and within Wharton Basin (WB; strike-slip). N portion of NinetyEast ridge (NyR) major discontinuity for strain and velocity. Taking into account intraplate velocity field in vicinity of Sumatra trench, we obtain convergence rate of 46 mm/ yr towards N18°E at epicentre of 2004 Aceh mega-earthquake. Predicted shortening in CIB and WB and extension near Chagos-Laccadive in agreement with deformation measured from plate reconstructions and seismic lines, suggesting continuum of deformation since onset of intraplate deformation around 7.5-8 Ma)

Denham, D. (1973)- Seismicity, focal mechanisms and the boundaries of the Indian-Australian plate. In: P.J. Coleman (ed.) The Western Pacific: island arcs, marginal seas, geochemistry. University of Western Australia Press, p. 35-53.

Deng, J., Q. Wang, G. Li, C. Li & C. Wang (2013)- Tethys tectonic evolution and its bearing on the distribution of important mineral deposits in the Sanjiang region, SW China. Gondwana Research 26, p. 419-437.
(online at: http://www.cugb.edu.cn/uploadCms/file/20600/papers_upload/20141011142419767420.pdf)
(Sanjiang region in SE Tibet Plateau and NW Yunnan formed by amalgamation of Gondwana-derived continental blocks and arc terranes from Paleozoic-Mesozoic. E Paleozoic ophiolites (473-439 Ma) in Changning-Menglian belt indicate existence of Proto-Tethys ocean. Proto-Tethys succeeded in E Devonian by Paleo-Tethys. Changning-Menglian main ocean existed from M Devonian- M-Triassic. E-ward subduction of oceanic plate from E Permian to E Triassic formed >1500 km arc terrane from Yunnan to E Tibet. Numerous Late Triassic S-type granite plutons (230-219 Ma), produced W-Sn deposits. E-ward oceanic subduction of Mesotethys (Late Permian- M Cretaceous) produced E Cretaceous granitoids with skarn-type Pb-Zn and Sn-Fe deposits in Baoshan and Tengchong blocks. Neo-Tethys subduction (Late Cretaceous-~50 Ma) beneath Tengchong block formed S-type granitoids with skarn-type and greisen-type Sn-W deposits. Etc.)

Dercourt, J., L.E. Ricou & B. Vrielynck (eds.) (1993)- Atlas Tethys, Palaeoenvironmental maps. Gauthier-Villars, Paris, p. 1-307.
(Fourteen plate reconstructions and paleogeography maps of Tethys Oceans from mid-Permian-Tortonian. Maps do not include much of SE Asia)

De Wever, P. & F. Baudin (1996)- Palaeogeography of radiolarites and organic-rich deposits in Mesozoic Tethys. Geol. Rundschau 85, 2, p. 310-326.
(Siliceous and marine organic-rich deposits both result of high planktonic productivity, but sometimes associated, sometimes separate in space and time. Siliceous marine phtanite family facies contains organic material and are blackish (vs red/green for radiolarite facies) and deposited generally in shallower environments. Paleogeographic analysis for three Mesozoic high sea-level intervals (Toarcian, Kimmeridgian and Cenomanian) show: (a) in Jurassic siliceous deposits closer to open ocean waters than organic-rich ones; (b) during Cretaceous times often associated)

De Wever, P., F. Baudin, J. Azema & E. Fourcade (1995)- Radiolarians and Tethyan radiolarites from primary production to their paleogeography. In: J. Dercourt & A.E.M. Nairn (eds.) The ocean basins and margins 8, The Tethys Ocean, Plenum Press, p. 267-318.

Dewey, J.F., S. Cande, S. & W.C.I. Pitman (1989)- Tectonic evolution of the India/ Eurasia collision zone. Eclogae Geol. Helvetiae 82, p. 717-734.
(online at: http://dx.doi.org/10.5169/seals-166399)
(Since collision of India with Eurasia at ~45 Ma in M Eocene, N-S intracontinental convergence continued at ~5 cm/ year. Convergence accommodated principally by lithospheric thickening in widening zone between E transpressive sinistral megashear from Makran- Baikal and W dextral megashear from Sumatra to Tanlu Fault System. Lateral extrusion or escape was not major factor in accommodating India/Eurasia convergence)

Dickins, J.M. (1985)- Late Palaeozoic glaciation. Bureau Mineral Res. J. Australian Geol. Geophysics 9, p. 163-169.
(online at: www.ga.gov.au/metadata-gateway/metadata/record/81179/)

(Review of Carboniferous- Permian glaciation in Australia- SE Asia. Main widespread terrestrial glaciation across Gondwana in Asselian (earliest Permian). In all areas rel. warm conditions returned in Sakmarian)

Dickins, J.M. (1985)- Palaeobiofacies and palaeobiogeography of Gondwanaland from Permian to Triassic. In: K. Nakawara & J.M. Dickins (eds.) The Tethys, Tokai University Press, Tokyo, p. 83-92.

Dickins, J.M. (1992)- Permian geology of Gondwana countries: an overview. Int. Geology Review 34, p. 986-1000.
(Earliest Permian of most Gondwanan areas characterized by glacial deposits and cold-water marine faunas. In W Australia glaciation confined to Asselian, followed by amelioration and rise in sea level in Sakmarian)

Dickins, J.M. (1996)- Problems of a Late Palaeozoic glaciation in Australia and subsequent climate in the Permian. Palaeogeogr. Palaeoclim. Palaeoecology 125, p. 185-197.
(Two main periods of glaciation: (1) Namurian (E Carboniferous) possibly extending into beginning of Late Carboniferous; (2) Asselian (earliest Permian). End of glaciation asssociated with worldwide eustatic rise in sea-level in basal Sakmarian (after this no good evidence for glaciation in Australia). In some places in Australia subtropical or tropical conditions in U Sakmarian, U Artinskian, Kungurian, Kazanian and Dzhulfian, all separated probably by colder periods. Marine Carboniferous Levipustula fauna may represent less cold sea water than E Permian Eurydesma fauna)

Dickins, J.M. (2000)- The northern margin of Gondwanaland: uppermost Carboniferous to lowermost Jurassic and its correlation. In: H.F. Yin, J.M. Dickins et al. (eds.) Permian-Triassic evolution of Tethys and Western Circum-Pacific, Developments in Palaeontology Stratigraphy 18, Elsevier, p. 257-270.
(In latest Carboniferous- early E Permian no apparent continuous sea in Tethys sensu Suess. Earliest Permian land barrier separated C Asian Sea from southern sea connecting 'Gondwana' countries. Youngest recognized marine deposits connecting through warm water C Asian Sea not younger than E Permian (Sakmarian). In U Permian-Triassic a N shore of Gondwanaland can be traced with southern sediment source. N shore of Tethys largely remains to be delineated)

Dickins, J.M. & Phan Cu Tien (1997)- Indosinian tectogeny in the geological correlation of Vietnam and adjacent regions. In: J.M. Dickins et al. (eds.) Late Palaeozoic and Early Mesozoic Circum-Pacific events and their global correlation. Cambridge University Press, p. 87-96.
(Review of U Devonian- Triassic stratigraphy of Vietnam. Indosinian orogeny manifested by Dzhulfian (U Permian) widespread unconformity and volcanic activity. Second Indosinian orogenic phase at end-Carnian, with widespread intrusive activity and deposition of coal-bearing molasse)

Dickins, J.M., Y. Zunyi, Yin Hongfu et al. (eds.) (1997)- Late Palaeozoic and Early Mesozoic Circum-Pacific events and their global correlation. Cambridge University Press, p. 1-255.
(Mainly mainland E Asia papers; nothing on Indonesia)

Diener, C. (1916)- Die marinen Reiche der Triasperiode. Denkschriften Kaiserl. Akademie Wissenschaften, Wien, Math.- Naturwiss. Klasse, 92, p. 405-549.
(online at: www.landesmuseum.at/pdf_frei_remote/DAKW_92_0405-0549.pdf)
('The marine realms of the Triassic period'. Review of global Triassic macrofaunas as known in 1916. Four main faunal provinces (Boreal, Mediterranean, Himalayan and Andean), based on cephalopods, bivalves, etc. Indonesian area groups in Himalayan Domain. Brief reviews of Triassic on Timor, Roti, Savu, Sumatra, Seram, Buru. Only Timor has complete Triassic section, with cephalopods and corals very similar to Alps. In other areas Triassic starts with Carnian transgression. Triassic of Sumatra mainly shallow marine clastics)

Domeier, M. & T.H. Torsvik (2014)- Plate tectonics in the late Paleozoic. Geoscience Frontiers 5, p. 303-350.
(online/open access at: www.sciencedirect.com/science/article/pii/S1674987114000061)

Doust, H. (2017)- Petroleum systems in Southeast Asian Tertiary basins. Bull. Geol. Soc. Malaysia 64, p. 1-16.
(online at: www.gsm.org.my/products/702001-101723-PDF.pdf)

(Productive Tertiary basins in SE Asia similar geodynamic developments, with 5 facies associations: (1) lacustrine (early synrift of Sundaland; mainly oil) (2) paralic (late synrift); (3) open marine shelf (post-rift, E Indonesia and Philippines) (4) deeper marine (post-rift; mainly gas) and (5) pre-Tertiary (E Indonesia and Thailand, mainly terrestrial). Around Borneo thick late postrift passive margin delta sequences with oil- and gas-prone coaly source rock; transported terrigenous organic material common in related deep marine environments and contributes to marine source facies. In SE Asia terrestrial and lacustrine source rocks rel. difficult to locate, variable in quality and often distributed in thin beds)

Doyle, P. (1992)- A review of the biogeography of Cretaceous belemnites. Palaeogeogr. Palaeoclim. Palaeoecology 92, p. 207-216.
(Belemnites display Boreal and Tethyan marine faunal realms from Early Jurassic- earliest Cretaceous. Austral marine realm was lacking. In late Barremian- early Aptian Austral Realm was initiated with first Gondwanan family, Dimitobelidae. Tethyan belemnite realm cannot be recognised after Cenomanian)

Doyle, P. & P. Howlett (1989)- Gondwana Antarctic belemnite biogeography and the break-up of Gondwana. In: J.A. Crame (ed.) Origins and evolution of Antarctic biota, Geol. Soc., London, Spec. Publ. 47, p. 167-182.
(In Late Jurassic, belemnite genera Hibolithes and Belemnopsis abundant and widespread in Tethys, characterizing Tethyan Realm from S Europe and Asia to Antarctica. Distinct S Hemisphere 'Austral' belemnite realm was absent, although some endemicity exists at species level. Late Jurassic Indo-Pacific belemnites dominated by Belemnopsis with Hibolithes as minor element of fauna)

Duan, L., Q.R. Meng, N. Christie-Blick & G.L. Wu (2017)- New insights on the Triassic tectonic development of South China from the detrital zircon provenance of Nanpanjiang turbidites. Geol. Soc. America (GSA) Bull., 11p.
(Triassic turbidites of Nanpanjiang basin reflect collision between S China and Indochina blocks. Turbidite system filled primarily from E to W. U-Pb ages and Hf isotope data for detrital zircons from M Triassic turbidites suggest provenance not from collisional orogen, but from poorly preserved arc at convergent plate boundary of S China. Zircon ages clusters: ~250-300 Ma, 350-400 Ma, 400-550 Ma, 900-1050 Ma and ~1600-1950 Ma. Andean-type (Paleo-Pacific subduction) Cathaysian margin of S China probable source for much of sediment of S China block. New model for Triassic tectonic evolution of S China)

Duan, L., Q.R. Meng, G.L. Wu & S.X. Ma (2012)- Detrital zircon evidence for the linkage of the South China block with Gondwanaland in early Palaeozoic time. Geol. Magazine 149, 6, p. 1124-1131.
(Detrital zircons from Lower Devonian sections in S China block dominant Grenvillian and Pan-African populations, similar to E Paleozoic from Gondwana, Tethyan Himalaya and WAustralia. Hf isotopes indicate contributions of juvenile crust at 1.6 Ga and 2.5 Ga. S China block was integral part of E Gondwana in E Paleozoic, not continental block in Paleo-Pacific or fragment of Laurentia)

Ehiro, M. (1996)- Permian and Triassic paleogeography based on ammonoid fossils of East Asia. Chikyu Monthly, 18, p. 724-729. *(in Japanese)*

Ehiro, M. (1997)- Ammonoid palaeobiogeography of the South Kitakami palaeoland and palaeogeography of eastern Asia in Permian to Triassic time. Proc. 30th Int. Geological Congress, Beijing 1996, 12, Palaeontology and historical geology, VSP, Utrecht, p. 18-28.
(Biogeographic analysis of Permian- Triassic ammonoids in E Asia suggests Kikatami Terrane in NE Japan, was in equatorial realm near S China/ Khanka Terranes. Four ammonoid provinces in Permian: (1) Boreal, (2) Equatorial American, (3) Equatorial Tethyan (incl. S China, SE Asia, Iran, Timor; with E Permian perrinitids, M Permian Timorites, Waagenoceras?) and (4) Peri-Gondwanan (incl. Australia, Himalayas, Salt Range))

Ehiro, M. (1998)- Permian ammonoid fauna of the Kitakami Massif, Northeast Japan- biostratigraphy and Paleobiogeography. In:Y. Jin et al. (eds.) Permian stratigraphy, environments and resources 2, Palaeoworld 9, p. 113-122.
(online at: http://work.geobiology.cn/ebook/)

(Similar to above. Late M Permian Timorites- Waagenoceras ammonites of 'allochthonous Timor' affiliated with Tethyan instead of peri-Gondwanan assemblages)

Enay, R. & E. Cariou (1996)- Identification du Kimmeridgien du domaine Indo-Sud-Ouest Pacifique: la faune a *Paraboliceras* (Ammonitina) de l'Himalaya a la Nouvelle-Zelande. Comptes Rendus Academie Sciences, Paris, ser. 2, 322, 6, p. 469-474.
('Recognition of the Kimmeridgian Stage in the Indo-SW Pacific: the Paraboliceras fauna from the Himalayas to New-Zealand'. Kimmeridgian Stage not easily recognizable in Indo-SW Pacific because of lack of European taxa. Faunal sequence of Spiti Shales in C Nepal shows faunas with Paraboliceras (previously thought be of Tithonian age) are diagnostic of Kimmeridgian. This endemic Kimmeridgian biogeographic association extends from Himalayas to New Zealand.)

Enay, R. & E. Cariou (1997)- Ammonite faunas and palaeobiogeography of the Himalayan belt during the Jurassic: initiation of a Late Jurassic austral ammonite fauna. Palaeogeogr. Palaeoclim. Palaeoecology 134, 1, p. 1-38.
(Jurassic ammonite faunas form basis for new biogeographical interpretation of U Bathonian- Tithonian/ Berriasian peri-Gondwanan faunas. Low diversity Austral ammonite fauna around E and S Gondwanaland, from Himalaya to Patagonia)

Enay, R. & E. Cariou (1999)- Jurassic ammonite faunas from Nepal and their bearing on the palaeobiogeography of the Himalayan belt. J. Asian Earth Sci. 17, 5-6, p. 829-848.
(M-L Jurasic Himalayan ammonite faunas rel. low diversity and dominance of indigenous genera. Faunas extending from Himalayas to Antarctica represent an actual biogeographical unit: Indo Pacific Realm. With Blanfordiceras wallichi in Tithonian)

Enkin, R.J., Z. Yang, Y. Chen & V. Courtillot (1992)- Palaeomagnetic constraints on the geodynamic history of the major blocks of China from the Permian to the present. J. Geophysical Research 97, p. 13953-13989.
(Review of paleomagnetic data of China region suggests major blocks probably in contact in Permian-Triassic, but Jurassic key age for present configuration. During Cretaceous, Chinese poles agree with poles from other continents transferred onto Eurasia. Much of China affected by small (<20°) rotations, interpreted as deformation caused by extrusion away from India collision)

ESCAP (1990)- Triassic biostratigraphy and paleogeography of Asia. ESCAP Atlas of Stratigraphy IX, Min. Res. Dev. Ser. 59, United Nations, New York, p. 1-92.
(Brief descriptions of Triassic across Asia, incl. Malaysia and Timor)

Fan, W., Y. Wang, Y. Zhang, Y. Zhang, F. Jourdan, J. Zi & H. Liu (2015)- Paleotethyan subduction process revealed from Triassic blueschists in the Lancang tectonic belt of Southwest China. Tectonophysics 662, p. 95-108.
(Subduction of Paleotethys Ocean and subsequent continental collision recorded in blueschists in Lancang SE Paleotethyan belt in SW China. Suyi blueschists zircon U-Pb age of 260 ± 4 Ma and glaucophane formed during prograde metamorphism with 40Ar/39Ar plateau age of 242 ± 5 Ma (M Trias). Protolith formed at 260 Ma and originated from basaltic seamount. Basaltic rocks subducted down to 30-35 km under Lincang arc to form epidote blueschists at ~242 Ma. Blueschists subsequently transported to shallower crustal levels in response to continuous underthrust of subducted slab and continent–continent collision in M-L Triassic)

Fang, N.Q., Q. Feng, S. Zhang & X. Wang (1998)- Paleo-Tethys evolution recorded in the Changning-Menglian Belt, western Yunnan. Comptes Rendus Academie Sciences, Paris, Sciences de la Terre, 326, p. 275-282.
(Changning-Menglian belt of W Yunnan is ~400km long, 60 km wide remnant of Paleo-Tethyan archipelago. With E Devonian- M-L Triassic volcano-sedimentary record, incl. flysch, radiolarites, MORB basalts, seamount carbonates. Flanked by Cathaysian Lincang-Simao massif in E (M-L Devonian paleolatitude ~38-43°S) and Gondwanan Gengma-Baoshan massif in W (Devonian paleolatitude ~0-4.5°S; with Permo-Carboniferous moraine deposits))

Fang, Wu (1989)- Paleozoic paleomagnetism of the South China block and the Shan Thai block: The composite nature of Southeast Asia. Ph.D. Thesis, University of Michigan, p. 1-165.
(Paleomag of Paleozoic samples from E Yunnan (S China Block) and W Yunnan (N end of Shan-Tai Block). Contrasting paleolatitudes for Devonian samples: equatorial position for E Yunnan, of ~40° for W Yunnan, which probably was part of Gondwana supercontinent)

Fang, Z.J. (1991)- Sibumasu biotic province and its position in Paleotethys. Acta Palaeontologica Sinica 30, 4, p. 344-349.
(Sibumasu province characterized by: (1) No reliable Gondwana cold-water biota or glacial deposits (interpreted glaciomarine pebble-bearing layers are debris flows; molluscs identified as Eurydesma are Schiziodus). Temperate and warm water fauna dominant; carbonates not common; (2) No tropical Cathaysian biotas and reef complexes. Absence of Late Paleozoic coal seams and occurrence of mixed Permian Cathaysian-Gondwana flora in W Yunnan suggest Sibumasu between equatorial coal swamp zone (Cathaysian flora) and S temperate coal swamp zone (Glossopteris flora); (3) Contains Peri-Gondwana and Cathaysian elements but also European, Ural and Boreal elements; (4) Common endemic genera and species)

Fang, Z.J. (1994)- Biogeographic constraints on the rift-drift accretion history of the Sibumasu block. J. Southeast Asian Earth Sci. 9, 4, p. 375-385.
(Paleozoic biogeographic history of Sibumasu block stages: (1) Cambrian-Ordovician with Australian faunal affinities; (2) Silurian-Devonian with Rhenish-Bohemian faunal affinities; (3) Carboniferous- Permian independent biotic province, different from both peri-Gondwanaland (no true E Permian glacial deposits) and Cathaysian biotas (no Permian coals) in Tethyan realm. Towards end Permian, Cathaysian elements more important, especially in E margin, indicating Cathaysian and Sibumasu biotas began to merge. Sibumasu rifted from Gondwanaland in M Ordovician or earlier and sutured to East Continent in Late Permian and E Triassic)

Fang, Z.J., Z.C. Zhou & M.J. Lin (1992)- On several questions concerning Changning-Menglian Suture from perspect of stratigraphy. J. Stratigraphy 16, p. 292-303.

Fedorov, P.I. & A.V. Koloskov (2005)- Cenozoic volcanism of Southeast Asia. Petrology 13, 4, p. 352-380.
(Three main periods of activity in Cenozoic volcanic complexes of SE China, Vietnam, Thailand and S China Sea: E Tertiary, Miocene and Pliocene-Quaternary. First period characterized by potassic basalt (Vietnam) and tholeiitic bimodal (SE China) volcanism. Subsequent periods dominated by intraplate-type tholeiitic and alkaline volcanism and minor bimodal tholeiitic magmatism (basalts and rhyolites of the Okinawa Trough))

Fernandez, V., J. Claude, G. Escarguel, E. Buffetaut & V. Suteethorn (2009)- Biogeographical affinities of Jurassic and Cretaceous continental vertebrate assemblages from SE Asia. In: E. Buffetaut (ed.) Late Palaeozoic and Mesozoic ecosystems in SE Asia, Geol. Soc., London. Spec. Publ. 315, p. 285-300.
(Late Jurassic- Early Cretaceous vertebrate assemblages from Khorat Group of Thailand show strong provincialism)

Ferrari, O.M., C. Hochard & G.M. Stampfli (2008)- An alternative plate tectonic model for the Palaeozoic-Early Mesozoic Palaeotethyan evolution of Southeast Asia (Northern Thailand-Burma). Tectonophysics 451, p. 346-365.
(Alternative model for Cambrian- Triassic geodynamic evolution of SE Asia. Differs in Paleotethys suture location in Thailand at Mae Yuam fault. Closure of E Paleotethys related to S-ward oceanic subduction that triggered E Neotethys opening as back-arc, due to Late Carboniferous- E Permian arc magmatism in Mergui (Burma) and Lhasa block (S Tibet) and absence of arc magmatism E of suture. To explain Carboniferous-E Permian and Permo-Triassic arcs in Cambodia, U Triassic magmatism in E Vietnam and L-M Permian arc volcanics in W Sumatra, we introduce Orang Laut terranes, which detached from Indochina and S China during back-arc opening due to W-ward subduction of Paleopacific. This also explains location of Cathaysian W Sumatra block W of Cimmerian Sibumasu block)

Fielding, C.R., T.D. Frank & J.L. Isbell (2008)- The late Paleozoic ice age- a review of current understanding and synthesis of global climate patterns. Geol. Soc. America (GSA), Spec. Paper 441, p. 343-354.

(Late Paleozoic ice age was series of 1-8 My duration discrete glacial events separated by periods of warmer climate. After smaller precursor events massive expansion of ice at Carboniferous-Permian boundary, and glaciation became bipolar. Ice sheets at maximum in Asselian- E Sakmarian, after which they decayed rapidly over much of Gondwana. Minor glaciations continued in Australia and Siberia through late E- M Permian)

Flower, M., R.M. Russo, K. Tamaki & N. Hoang (1998)- Mantle contamination and the Izu-Bonin-Mariana (IBM) 'high-tide mark': evidence for mantle extrusion caused by the Tethyan closure. Tectonophysics 333, p. 9-34.
(Discussion of SE Asia- W Pacific tectonics and plate kinematics. W Pacific back-arc basins opened in 3 main episodes of arc-trench rollback: (1) Eocene W Philippine Sea and Celebes Sea, (2) Oligocene-Miocene Japan, South China, Sulu and Makassar Seas, and (3) Late Miocene- Quaternary Okinawa, Mariana Troughs and Andaman Sea. Extrusion of Tethyan astenosphere, contaminated by sub-Asian cratonic lithosphere, was major cause of W Pacific arc rollback and basin opening)

Flower, M., K. Tamaki & N. Hoang (1998)- Mantle extrusion: a model for dispersed volcanism and DUPAL-like asthenosphere in East Asia and the Western Pacific. In: M.F.J. Flower et al. (eds.) Mantle dynamics and plate interactions in East Asia, American Geophys. Union (AGU), Geodyn. Ser. 27, p. 67-88.
(On dispersed volcanic clusters over much of Asia and W Pacific following India-Asia and Australia-Indonesia collisions: (1) variably potassic tholeiites and alkali basalts in tension gashes, pull-apart basins, etc., and (2) shoshonite series (K-rich boninite) at extensional, near-collision shear zones and sundered arcs)

Fluteau, F., J. Besse, J. Broutin & M. Berthelin (2001)- Extension of Cathaysian flora during the Permian-climatic and paleogeographic constraints. Earth Planetary Sci. Letters 193, 3, p. 603-616.
(Mixed Gondwanan, Euramerian and Cathaysian floral elements in 'Mid' Permian Gharif Fm of Oman)

Fontaine, H. (1986)- Shan-Thai Block and Indochina Block during the Carboniferous and the Permian; palaeontological and stratigraphical data. In: Proc. First Conf. Geology of Indochina, Ho Chi Minh City 1986, Gen. Dept. of Geology Vietnam, 1, p. 101-103.

Fontaine, H. (1986)- The Permian of Southeast Asia. CCOP Techn. Bull. 18, p. 1-111.
(Extensive review of geology and paleontology of Permian of Thailand, Vietnam, Laos, Malaysia, Sumatra, etc. Followed by 7 appendices on Permian fauna-flora by Fontaine, Nguyen Tien, Vachard and Vozenin-Serra))

Fontaine, H. (2002)- Permian of Southeast Asia: an overview. J. Asian Earth Sci. 20, 6, p. 567-588.
(Permian rocks widespread in SE Asia. Many limestones with fusulinaceans recognized as Permian, but ones without fusulinaceans and previously assigned to Permian, found to be Triassic. Widespread massive limestones represent extensive carbonate platforms. Local occurrences of thick-bedded cherts indicate deep marine environments. Pebbly mudstones in Myanmar, Thailand, NW Malaysia and Sumatra formed in glacial environment. Volcanic rocks absent in NW Peninsular Malaysia and Thailand, but widespread in N Vietnam, Sumatra, E Malay Peninsula and Timor. Faunal and floral assemblages used to establish climatic conditions, environments of deposition and to define crustal blocks and Permian paleogeography)

Fontaine, H., P. David, R. Pardede, N. Suwarna, J.P. Bassoullet, L. Beauvais, E. Buffetaut & R. Ingavat (1983)- The Jurassic in Southeast Asia (Thailand, Laos, Cambodia, Viet Nam, Malay Peninsula, Sumatra, Borneo, West Philippines). CCOP Techn. Bull. 16, p. 1-75.
(Extensive review of Jurassic in SE Asia. Jurassic in Cambodia, Laos, Vietnam, E Thailand and Malay Peninsula mainly in continental facies, with occasional thin, shallow marine interbeds. Busuanga, Linapacan and Ili islands, NE of Palawan, Philippines, 200m thick Late Jurassic limestone with Cladocoropsis, Pseudocyclammina lituus, Salingoporella spp., Thaumatoporella, etc. (Fontaine et al. 1983, Bassoulet 1983). Late Jurassic- E Cretaceous limestones with Cladocoropsis- Pseudocyclammina at many localities across W Sumatra (NW Sumatra, Jambi, S Sumatra; all tied to 'Woyla Terranes'?; JTvG), U Jurassic Bau Limestone in W Sarawak, etc.)

Fontaine, H., C. Chonglakmani, I. Amnan & S. Piyasin (1994)- A well-defined Permian biogeographic unit: peninsular Thailand and northwest Peninsula Malaysia. J. Southeast Asian Earth Sci. 9, p. 129-151.
(M-U Permian-Triassic Ratburi Lst of Peninsular Thailand and Chuping Lst of NW Peninsular Malaysia with rel. low diversity corals and fusulinids (Pseudofusulina, Staffella, Monodiexodina), and with forams incl. Hemigordiopsis and Shanita. These characterize a well-defined biogeographic unit (Shan-Tai/ Sibumasu terrane; JTvG). Noted similarities of several fossil groups with Timor Permian faunas)

Fontaine, H., P. David, R. Pardede & N. Suwarna (1983)- Marine Jurassic in Southeast Asia. UN-ESCAP CCOP Techn. Bull. 16, p. 3-30.
(Jurassic in W Philippines (Palawan Block), W Borneo, W Sumatra, Malay Peninsula, Thailand, Kampuchea and Vietnam. Marine Jurassic generally in limited areas only, and incomplete sections. Strong faunal affinities with Tethyan realm in E-M Jurassic, with Jurassic of Japan in Upper Jurassic)

Fontaine, H. & V. Suteethorn (1992)- Permian corals of Southeast Asia and the bearing of a recent discovery of Lower Permian corals in Northeast Thailand. In: C. Piencharoen (ed.) Proc. Nat. Conf. Geologic resources of Thailand: potential for future development, Bangkok, Dept Min. Resources, p. 346-354
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1992/6234.pdf)
(Brief review of Permian corals of SE Asia. Permian corals of Thailand more diverse than Peninsular Thailand, NW Peninsular Malaysia and Timor, all of which are richer and more prolific than those from Australia. Timor corals rel. low diversity, mainly solitary Rugosa. Sumatra corals of Padang and W Jambi regions high diversity reefal limestone. Terbat Lst of W Borneo common fusulinids, but few or no corals. New Lower Permian fossil localities in NE Thailand (Loei) with solitary and compound rugose corals, incl. Kepingophyllidae)

Fortey, R.A. & L.R.M. Cocks (1998)- Biogeography and palaeogeography of the Sibumasu terrane in the Ordovician: a review. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publ., Amsterdam, p. 43-56.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/01/Fortey_Cocks.pdf)
(Sibumasu (=Shan-Tai) paleocontinent comprises Sumatra, Malaysia, W Thailand and Burma. Ordovician rocks in China, Burma, S Thailand and interior Australia mainly carbonates. Lower Ordovician shelf faunas from Thailand- Langkawi low-latitude faunas, with affinities with N China- Australia, but M-U Ordovician trilobites most similar to S China)

Fourcade, E., J. Azema, J.P. Bassoullet, F. Cecca, J. Dercourt et al. (1995)- Palaeogeography and palaeoenvironments of the Tethys during Jurassic Pangaean break-up. In: A.E.M. Nairn, L.E. Ricou et al. (eds.) The ocean basins and margins 8, The Tethys Ocean. Plenum, New York, p. 191-214.

Fournier, M., L. Jolivet, P. Davy & J. Thomas (2004)- Backarc extension and collision: an experimental approach to the tectonics of Asia. Geophysical J. Int. 157, 2, p. 871-889.
(online at: https://academic.oup.com/gji/article/157/2/871/2080608)
(Modeling of E Asia deformation. Large parts of SE Asia affected by subduction-related extension, interacting with far field effects of India- Asia collision. Major backarc basins associated with ~N-S right-lateral strike-slip faults which accommodate N-ward penetration of India into Eurasia)

Fujikawa, M. & T. Ishibashi (2000)- Paleozoic ammonoid paleobiogeography in Southeast Asia. Geosciences J. 4, 4, p. 295-300.
(Paleobiogeography of Late Paleozoic ammonoids in SE Asia. Sibumasu terrane separated from Gondwanaland in E-M Permian. Contrary to previous opinion, no close faunal resemblance between Indochina and S China from Pennsylvanian to M Permian)

Fujiwara, K.P., H. Zaman, A. Surinkum, N. Chaiwong, M. Fujihara, H.S. Ahn & Y. Otofuji (2014)- New insights into regional tectonics of the Indochina Peninsula inferred from Lower-Middle Jurassic paleomagnetic data of the Sibumasu Terrane. J. Asian Earth Sci. 94, p. 126-138.
(Sibumasu Terrane between CW-rotated Indochina Block and CCW-rotated S Sundaland Block. Paleomagnetic data from E-M Jurassic Umphang Gp red sandstones in Ratchaburi area variable declinations(348.5° and

44.7°) for Sibumasu. Sibumasu Terrane behaved as independent fragment when Indochina was undergoing CW rotation and S-ward displacement, as result of extrusion tectonics after India-Asia collision. CCW rotation of 15° estimated for Sibumasu Terrane, as result of continuous N-ward indentation of Australian Plate into S Sundaland Block)

Fuller, M., R. Haston, J.L. Lin, B. Richter, E. Schmidtke & J. Almasco (1991)- Tertiary paleomagnetism of regions around the South China Sea. J. Southeast Asian Earth Sci. 6, 3-4, p. 161-184.
(Paleomag data for Borneo, Malay Peninsula, Philippines)

Fyhn, M.B.W., P.F. Green, S.C. Bergman, J. Van Itterbeeck, T.V. Tri, P.T. Dien, I. Abatzis, T.B. Thomsen, S. Chea, S.A.S. Pedersen et al. (2016)- Cenozoic deformation and exhumation of the Kampot Fold Belt and implications for south Indochina tectonics. J. Geophysical Research, Solid Earth, 121, 7, p. 5278-5307.
(Latest Mesozoic- earliest Cenozoic deformation of Sundaland core between SE Asian fusion and Cenozoic era of rifting and basin formation. In S Cambodia and Vietnam major latest Cretaceous- Paleocene thrusting and uplift of Kampot Fold Belt and surrounding regions, with up to ~11 km exhumation. Latest Cretaceous-Paleocene orogenesis affected much of greater Indochina, probably due to plate collision along E Sundaland or combination of collisions along E and W Sundaland. AFTA and ZFTA data document protracted cooling of Cretaceous granites and locally elevated thermal gradients 10's of My afterr emplacement. Thermalgradient stabilized by E Miocene time, and Miocene cooling probably reflects renewed denudation pulse)

Gao, X., X. Ma & X. Li (2011)- The great triangular seismic region in eastern Asia: thoughts on its dynamic context. Geoscience Frontiers 2, 1, p. 57-65.
(online at: http://ac.els-cdn.com/)
(On SE Asia earthquake distributions and major plate movements)

Gardiner, N.J., M.P. Searle, C.K. Morley, M.P. Whitehouse, C.J. Spencer & L.J. Robb (2016)- The closure of Palaeo-Tethys in Eastern Myanmar and Northern Thailand: new insights from zircon U-Pb and Hf isotope data. Gondwana Research 39, p. 401-422.
(Main Range and E Province granite belts of SE Asia represent magmatic expression of closure of Paleo-Tethys in Late Paleozoic- E Mesozoic times. New U-Pb zircon age data from N Thailand and E Myanmar constrain closure in Myanmar to ~230 Ma. Age of 219-220 Ma from Kyaing Tong granite imply N extension of Main Range Province into E Myanmar (E Triassic). Tachileik granite in far E Myanmar 266 Ma, consistent with E Province ages. Hf data suggest Paleoproterozoic crust underlies both Main Range and E Province granites)

Gatinsky, Y.G. (1986)- Geodynamics of Southeast Asia in relation to the evolution of ocean basins. Palaeogeogr. Palaeoclim. Palaeoecology 55, p. 127-144.
(Geodynamics of SE Asia closely connected with cyclic development of large oceanic basins: Paleotethys (M Paleozoic-E Mesozoic), Tethys (end Paleozoic- beginning Cenozoic), and Indian and Pacific Oceans (Late Mesozoic- Cenozoic). Opening of basins accompanied by simultaneous closing of earlier basins)

Gatinsky, Y.G. & C.S. Hutchison (1986)- Cathaysia, Gondwanaland, and the Paleotethys in the evolution of continental Southeast Asia. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Reg. Congress Geology, Mineral Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geol. Soc. Malaysia 19, p. 179-199.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986b10.pdf)
(Continental SE Asia dominated by Precambrian continental blocks overlain by Late Proterozoic-Paleozoic platform successions. Most blocks rifted and drifted from Australian Gondwanaland in Early Paleozoic and were in equatorial position by Permian time. Between blocks are intensely folded mobile belts. West Borneo block initial separation from Eurasia in Late Triassic-Jurassic (creation of Proto-South China Sea), then detached from Indosinia in Late Cretaceous-Paleogene and moved S along fault margin of Vietnam shelf)

Gatinsky, Y.G., C.S. Hutchison, N. N. Minh & T.V. Tri (1984)- Tectonic evolution of Southeast Asia. 27th Int. Geological Congress, Moscow, Rept. 5, p. 225-239.

Gatinsky, Y.G., A.V. Mischina, I.V. Vinogradov & A.A. Kovalev (1978)- The main metallogenic belts of Southeast Asia as the result of different geodynamic conditions interference. In: P. Nutalaya (ed.) Proc. 3rd Regional Conf. Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, Asian Inst. Techn., p. 313-318.
(Majority of mineral occurrences of SE Asia in five metallogenic belts)

Gatinsky, Y.G., Y.G. Zorina & A.A. Chistyakov (1983)- Fault tectonics in Southeast Asia. Proc. 19th Sess. CCOP, Tokyo 1982, 2, Techn. Repts., p. 243-253.
(Brief descriptions of characteristics of main fault zones in SE Asia)

Geyer, O.F. (1977)- Die "*Lithiotis*-Kalke" im Bereich der unterjurassischen Tethys. Neues Jahrbuch Geol. Palaont. Abhandl. 153, p. 304-340.
('The Lithiotis limestones' in the Early Jurassic Tethys Realm'. Tethyan Early Jurassic reefal limestones commonly dominated by large thick-walled Lithiotis-type bivalves (also present in Fatu Limestones of Timor; Krumbeck 1923, Hayami 1984))

Gibbons, A. (2012)- Regional plate tectonic reconstructions of the Indian Ocean. Ph.D. Thesis University of Sydney, p. 1-185.
(online at: http://ses.library.usyd.edu.au/handle/2123/8580)
(New model of Indian Ocean plate tectonic history, suggesting smaller extent of Greater India and later collision than previous models. Main driver is Jurassic rock sample dredged from Cretaceous Wharton basin off W Australia. Argoland accreted to equatorial intra-oceanic arc at ~126 Ma (E Cretaceous; obduction event recorded in zircons from ophiolites in Yarlung-Tsangpo suture zone between Indian and Eurasian blocks). E Argoland accreted to Sumatra at ~80 Ma, possibly re-attaching Woyla Terranes back to Sumatra margin. Greater India's indenter, Gascoyne block, reached W Burma and E edge of intra-oceanic arc at ~50 Ma, as India continued to migrate North. Final collision between Greater India (accreted to intra-oceanic arc) and Eurasia did not take place until ~35 Ma)

Gibbons, A., J.M. Whittaker & R.D. Muller (2013)- The breakup of East Gondwana: assimilating constraints from Cretaceous ocean basins around India into a best-fit tectonic model. J. Geophysical Research, Solid Earth, 118, doi:10.1002/jgrb.50079, p. 1-15.

Gibbons, A.D., S. Zahirovic, R.D. Muller, J.M. Whittaker & V. Yatheesh (2015)- A tectonic model reconciling evidence for the collisions between India, Eurasia and intra-oceanic arcs of the central-eastern Tethys. Gondwana Research 28, 2, p. 451-492.
(Plate tectonic model for India-Eurasia collision. With plate reconstructions since Middle Jurassic (160 Ma) and including chapter on SE Asia and Woyla Arc of Sumatra)

Gobbett, D.J. (1973)- Carboniferous and Permian correlation in Southeast Asia In: B.K. Tan (ed.) Proc. Reg. Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geol. Soc. Malaysia 6, p. 131-142.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1973010.pdf)
(Late Paleozoic rocks from Thailand, Malaysia, Myanmar, Vietnam, Laos, Cambodia, Sumatra, Borneo, etc.))

Goldfarb, R.J., R.D.Taylor, G.S. Collins, N.A. Goryachev & O.F. Orlandini (2014)- Phanerozoic continental growth and gold metallogeny of Asia. Gondwana Research 25, p. 48-102.
(Review of tectonic evolution and associated gold deposits of mainland Asia in past 800 Myrs. Nothing on Indonesia)

Golonka, J. (2007)- Late Triassic and Early Jurassic palaeogeography of the world. Palaeogeogr. Palaeoclim. Palaeoecology 244, p. 297-307.
(Paleogeographic maps for Late Triassic (Carnian-Norian) and E Jurassic (Hettangian-Toarcian). Triassic continued N-ward drift of Cimmerian continent corresponded with closure and consumption of Paleotethys and opening of Neotethys. Most significant Late Triassic convergent event was Indosinian orogeny, result of

consolidation of S and N China blocks. Also, Indochina and 'Indonesia' sutured to S China. Triassic- Jurassic boundary important biotic extinction event)

Golonka, J. (2007)- Phanerozoic paleoenvironment and paleolithofacies maps- Late Paleozoic. Geologia 33, 2, p. 145-209.
(online at: http://journals.bg.agh.edu.pl/GEOLOGIA/2007-02/Geologia_2007_2_01.pdf)
(Global plate tectonic and paleogeographic maps for 8 E Devonian- Permian time intervals. Includes Australia- SE Asia blocks evolution. 'Indonesia' shown as part of Cimmerian Blocks that rifted off Gondwana in Permian and collide with mainland SE Asia in Triassic)

Golonka, J. (2007)- Phanerozoic paleoenvironment and paleolithofacies maps- Mesozoic. Geologia 33, 2, p. 211-264
(Global plate tectonic and paleogeographic maps for 8 Mesozoic time intervals. Most significant Triassic convergent event was Indosinian orogeny (collision of Indochina and Indonesia with S China). N-ward drift of Cimmerian continents driven by closing of Paleotethys and opening of Neotethys Ocean. SE Asia not very well portrayed in this global map series)

Golonka, J. (2009)- Phanerozoic paleoenvironment and paleolithofacies maps- Cenozoic. Geologia 35, 4, p. 507-587.
(online at: http://journals.bg.agh.edu.pl/GEOLOGIA/2009-04/Geologia_2009_4_01.pdf)

Golonka, J. (2009)- Phanerozoic paleoenvironment and paleolithofacies maps- Early Paleozoic. Geologia 35, 4, p. 589-654.
(online at: http://journals.bg.agh.edu.pl/GEOLOGIA/2009-04/Geologia_2009_4_02.pdf)
(Global plate tectonic and paleogeographic maps for 8 Cambrian- Silurian time intervals. Australia and China blocks in low northern latitudes)

Golonka, J. (2012)- Paleozoic paleoenvironment and paleolithofacies maps of Gondwana. AGH University of Science and Technology Press, Krakow, p. 1-82.
(Paleozoic global plate reconstructions, with focus on Gondwana region)

Golonka, J., A. Embry & M. Krobicki (2018)- Late Triassic global plate tectonics. In: L.H. Tanner (Ed.) The Late Triassic World, Earth in a time of transition, Topics in Geobiology 46, Springer International, Chapter 2, p. 27-57.
(Late Triassic global plate reconstruction, at time of Early Cimmerian and Indosinian orogenies that closed Paleotethys Ocean (earlier in Alpine-Carpathian-Mediterranean area, and latest in SE Asia). Pulling force of N-dipping subduction along N margin of Neotethys (= Mesotethys) caused drifting of new set of plates from passive Gondwana margin, dividing Neotethys Ocean (= opening of Cenotethys; Lhasa plate separation))

Golonka, J. & D. Ford (2000)- Pangean (Late Carboniferous-Middle Jurassic) paleoenvironment and lithofacies. Palaeogeogr. Palaeoclim. Palaeoecology 161, p. 1-34.
(Six global rconstructions for Pangea from Late Carboniferous- M Jurassic. Most of Indonesia shown as part of'Cimmerian Plates' that rifted from Gondwana in Permian and sutured with SE Asia in Late Triassic)

Golonka J. & A. Gaweda (2012)- Plate tectonic evolution of the southern margin of Laurussia in the Paleozoic. In: E. Sharkov (ed.) Tectonics- Recent advances, Chapter 10, InTech, p. 261-282.
(online at: http://cdn.intechopen.com/pdfs-wm/37859.pdf)
(Trench-pulling effect of N-dipping subduction at S margin of Eurasia caused rifting as well as transfer of plates from Gondwana to Laurasia. This model applied here to S margin of Laurussia in Paleozoic times. With 12 plate tectonic maps for time slices from Early Cambrian- Late Carboniferous)

Golonka, J., M. Krobicki & Nguyen Van Giang (2006)- Paleogeographic maps of Southeast Asia. In: Proc. Second Int. Workshop IGCP Project 480, Structural and tectonic correlation across the Central Asian orogenic collage, Ulaanbaatar 2006, p. 71-74. *(Extended Abstract only)*

(online at: www.igcp.itu.edu.tr/Publications/GolonkaKrob_06.pdf)

Golonka, J., M. Krobicki, J. Pajak & Nguyen Van Giang & W. Zuchiewich (2006)- Phanerozoic palaeogeography of Southeast Asia. Geolines 20, p. 40-43. *(Extended Abstract only)*
(online at: http://geolines.gli.cas.cz/fileadmin/volumes/volume20/G20-040.pdf)
(Brief summary of larger SE Asia project)

Golonka, J., M. Krobicki, Z. Paul & A. Khudoley (2006)- Central Asia- Southeast Asia connection during Paleozoic orogenies: problems and questions. Geolines 20, p. 21-23.
(online at: www.igcp.itu.edu.tr/Publications/Golonka_06.pdf)
(Peak of Paleozoic orogenesis in SE Asia and S China in Silurian- earliest Devonian. In N Vietnam deep water Ordovician and Silurian synorogenic deposits overlain by continental E Devonian red beds. With plate tectonic map for Early Ordovician)

Golonka, J., M. Krobicki, J. Pajak, Nguyen Van Giang & W. Zuchiewicz (2006)- Global plate tectonics and paleogeography of Southeast Asia. Fac. Geology, Geophysics Environmental Protection, AGH University of Science and Technology, Arkadia, Krakow, p. 1-128.
(Major review of global plate tectonic evolution from Cambrian- Recent in 32 maps/ time slices, with detailed maps for SE Asia (Vietnam focused). Differs from recent Hall and Metcalfe models in depicting the more 'traditional' view of SW Borneo as always having been part of Indochina-Sibumasu (which rifted off Indochina/ S China by opening of Proto- South China Sea in Jurassic or Cretaceous))

Gorur, N. & A.M.C. Sengor (1992)- Paleogeography and tectonic evolution of the Eastern Tethysides: implications for the Northwest Australian margin breakup history. In: U. von Rad et al. (eds.) Proc. Ocean Drilling Program (ODP), Scient. Results 122, College Station, p. 83-106.
(online at: www-odp.tamu.edu/publications/122_SR/VOLUME/CHAPTERS/sr122_05.pdf)
(Last major breakup from NW Australian continental margin (Exmouth, Wombat, Scott Plateaus) in Berriasian-Hauterivian. Major continental fragments in Asiatic Tethyside orogenic collage already collided with Asia by that time. Similarity of Mesozoic geological record suggests Sikuleh-Natal continental sliver in Sumatra, plus possible extensions in Java probably continental object that left NW Australia in Berriasian- Hauterivian. This sliver records E Cretaceous rapid subsidence and collision with Sumatra along Woyla suture in Late Cretaceous. NW Australian margin two older breakup events: (1) latest Carboniferous-earliest Permian: departure of Sibumasu block and E Cimmerian continent (Baoxan, W Thailand, E Burma), W Malaya and part of C Sumatra; (2) Late Triassic-Jurassic. Lhasa- C Burma block left Gondwanaland, which leads us to think breakup event was latest Triassic, probably Rhaetian)

Grant-Mackie, J.A., Y. Aita, B.E. Balme, H.J. Campbell, A.B. Challinor, D.A.B. MacFarlan, R.E. Molnar, G.R. Stevens & R.A.Thulborn (2000)- Jurassic palaeobiogeography of Australasia. In: A.J. Wright (ed.) Palaeobiogeogeography of Australasia, Mem. Assoc. Australasian Palaeontologists (AAP) 23, p. 311-353.
(Review of Australian Jurassic fossils distribution)

Grunow, A.M. (1999)- Gondwanan events and palaeogeography: a palaeomagnetic review. J. African Earth Sci. 28, 1, p. 53-69.

Guillot, S., K. Hattori, P. Agard, & S. Schwartz & O. Vidal (2009)- Exhumation processes in oceanic and continental subduction contexts: a review. In: S. Lallemand and F. Funiciello (eds.) Subduction zone geodynamics, Springer-Verlag p. 175-205.
(Review of exhumation of high and ultrahigh pressure metamorphic rocks and ophiolites. Three types of subduction zones: (1) Accretionary-type subduction zones exhume HP metasedimentary rocks by underplating; (2) Serpentinite-type subduction zones exhume HP to UHP in 1-10 km thick serpentinite subduction channel (incl. Bantimala, Sulawesi, Luk Ulo, C Java); (3) continental-type subductions exhume UHP rocks of continental origin. With examples from SE Asia)

Guo, F. (1990)- Terranes of Southwest China since the Late Paleozoic. In: T.J. Wiley et al. (eds.) Terrane analysis of China and the Pacific Rim, Circum-Pacific Council Energy and Mineral Resources, Houston, Earth Sci. Publ. 13, p.

Guo, F. (1991)- The boundary between Gondwana and Pacifica and the suturing ages of their allied terranes in Southwestern China. Acta Geologica Sinica (English Ed.) 4, p. 87-95.
(Two terrane groups in SW China: (1) with Permo-Carboniferous ice-rafted marine sediments and cold-water fauna of Gondwana facies (Gangmar Co, Lhasa, Sa' gya, Tengchong, Baoshan terranes), (2) with Yangtze-type U Paleozoic with Cathaysian flora and Pacific-type fusulinids (Changning-Menglian, Shuangjiang-Lancang, Qamdo and Bayan Har terranes). Longmu Co-Shuanghu-Dengqen- N Lancang River- Kejie-Mengding suture zone between two groups is boundary between Gondwana and Pacifica in SW China. Baoshan and Nyainrong-Sog in Lhasa composite terrane first combined with Asian continent in early E Jurassic. N Tibet- W Yunnan microplate (with Gangmar Co, Lhasa, Tengchong terranes) collided with Asia at end of E Cretaceous)

Hada, S., S. Bunopas, K. Ishii & S. Yoshikura (1997)- Rift-drift history and the amalgamation of Shan-Thai and Indochina/ East Malaysia Blocks. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 273-286.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Same paper as Hada et al. 1999)

Hada, S., S. Bunopas, K. Ishii & S. Yoshikura (1999)- Rift-drift history and the amalgamation of Shan-Thai and Indochina/East Malaysia Blocks. In: I. Metcalfe (ed.) Gondwana dispersion and Asian accretion (IGCP 321 Final Results Volume), Balkema, Rotterdam, p. 67-87.
(Nan-Chanthaburi suture zone in SE part of C Thailand, between Shan-Thai (=Sibumasu) in W and Indochina/ E Malaya Blocks in E, regarded as main branch of Paleo-Tethys ocean. Two belts: in W imbricated bedded Chanthaburi chert-clastic sequence (former active margin of Shan-Thai terrane; cherts with M-L Triassic radiolaria), in E Thung Kabin serpentinite melange (incl. red cherts with E, M and L Permian radiolaria and blocks of E and M Permian fusulinid limestone). Both belts unconformably overlain by ?U Triassic greywacke-andestic tuffaceous sequence, then Khorat Gp redbeds. Collision age believed to be latest Triassic)

Hada, S., K. Ishii, C.A. Landis, J. Aitchison & S. Yoshikura (2001)- Kurosegawa Terrane in Southwest Japan: disrupted remnants of a Gondwana-derived terrane. Gondwana Research 4, p. 27-38.
(Kurosegawa Terrane in SW Japan, between two Mesozoic subduction complex terranes, is exotic terrane with Permian limestones with fusulinacean forams Cancellina, Colania and Lepidolina, suggesting terrane once situated within Colania- Lepidolina territory in E Tethys-Panthalassa region at equatorial latitude, possibly close to E margin of S China or Indochina-E Malaya continental blocks. These blocks had rifted from Gondwana by Late Devonian. Amalgamated with proto-Asian continent (S China?) in Late Triassic (or later))

Hall, R. (2015)- Provenance and basement studies of SE Asia. In: Asia Petrol. Geosc. Conf. Exhib. (APGCE), Kuala Lumpur, 5p. *(Extended Abstract)*
(Brief review of recent Royal Holloway sandstone provenance work (Gunawan, Sevastjanova, Zimmermann))

Hall, R. & H. Breitfeld (2017)- Nature and demise of the Proto-South China Sea. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 61-76.
(online at: www.gsm.org.my/products/702001-101708-PDF.pdf
(Proto-South China Sea should be used only for oceanic slab subducted beneath Sabah and Cagayan between Eocene- E Miocene; Paleo-Pacific Ocean used here for lithosphere subducted under Borneo in Cretaceous. Good evidence for subduction between Eocene- E Miocene below Sabah, and W limit of Proto-S China Sea subduction was W Baram Line; subducted slab imaged in lower mantle by P-wave tomography. Present-day NW Borneo Trough and Palawan Trough not subduction trenches: NW Borneo Trough flexural response to gravity-driven deformation of Neogene sediment wedge NW of Sabah. Palawan Trough is continent-ocean transition at SE edge of modern S China Sea)

Hall, R., M.A. Cottam & M.E.J. Wilson (2011)- The SE Asian gateway: history and tectonics of the Australia-Asia collision. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of the Australia-Asia collision, Geol. Soc, London, Spec. Publ. 355, p. 1-6.
(Introduction to collection of geological papers on E Indonesia from 2009 SAGE conference)

Hallam, A. (1986)- Evidence of displaced terranes from Permian to Jurassic faunas around the Pacific margins. J. Geol. Soc. London 143, p. 209-216.
(Permian- Jurassic Tethyan marine invertebrate faunas from low latitude can be distinguished from less diverse higher latitude faunas. Displacement of these low-latitude faunas high latitudes around Pacific margins provides evidence for movement of displaced terranes. Fullest story worked out for W margin of N America, as far N as S Alaska. Also evidence for N-ward movement of continental segments along NE Asian margin. Torlesse Terrane of New Zealand appears to have moved considerable distance S-wards)

Halle, T.G. (1935)- On the distribution of the Late Palaeozoic floras in Asia. Geografiska Annaler 17, Suppl. (Sven Hedin volume), p. 106-111.
(First paper to recognize three Permian floral provinces in Asia: Indian Gondwanan-Glossopteris in SW, Angara flora in N, Cathaysian/ Sino-Malayan or Gigantopteris flora in SE. No figures)

Hao, S. & P.G. Gensel (1998)- Some new plant finds from the Posongchong Formation of Yunnan, and consideration of a phytogeographic similarity between South China and Australia during the Early Devonian. Science in China, ser. D, 41, 1, p. 1-13.
(online at: http://engine.scichina.com/publisher/scp/journal/Sci%20China%20Earth%20Sci-D/41/1/10.1007/BF02932414?slug=full%20text)
(E Devonian plants from Posongchong Fm of SE Yunnan, suggest E Devonian NE Gondwana phytogeographic unit in Equatorial position, comprising Australia, S China Block and perhaps Shan-Thai Block)

Harzhauser, M., A. Kroh, O. Mandic, W.E. Piller, U. Gohlich, M. Reuter & B. Berning (2007)- Biogeographic responses to geodynamics: a key study all around the Oligo-Miocene Tethyan Seaway. In: 48th Phylogenetic Symposium on historical biogeography, Zoologischer Anzeiger 246, 4, p. 241-256.
(Extensive terrestrial exchanges initiated by closure of Tethyan Seaway in Early Miocene. Until closure, marine faunal exchange via Mesopotamian Trough and Zagros Basin, reflected by Indonesian corals in Iran and 'western' gastropods in Pakistan and India. Divergences on both sides of seaway starting in Oligocene. Around closure event Proto-Mediterranean faunas already little in common with Indo-West Pacific Region)

Hasegawa, S. (1996)- Ridge subduction model- a mechanism for an earlier South China Sea opening and an alternative paleogeographic reconstruction of Southeast Asia. In: 11th Offshore SE Asia Conf. Exhib. (OSEA96), Singapore 1996, p. 155-167.
(Late Mesozoic- Tertiary plate reconstruction, generally compatible with Tapponnier extrusion model. The now subducted Kula-Pacific Ridge beneath Eurasia Plate caused S China basins rifting and provides heat under S China continental crust))

Hashimoto, W., E. Aliate, N. Aoki, G. Balce, T. Ishibashi, N. Kitamura, T. Matsumoto, M. Tamura & J. Yanagida (1975)- Cretaceous system of Southeast Asia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 15, p. 219-287.
(online at: http://twgeoref.moeacgs.gov.tw/star/1975/19750026/0219.pdf)
(Extensive review of Japanese work on Cretaceous stratigraphy and paleontology of Taiwan, Philippines, Borneo, Java, Sulawesi, etc.. Incl. significant details on Cretaceous Orbitolina occurrences on Borneo)

Hashimoto, W. & T. Sato (1980)- Correlation of the structural belts in East and Southeast Asia. In: T. Kobayashi, R. Toriyama et al. (eds.) Symposium on the geology and paleontology of SE Asia, Tsukuba 1978, Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 21, p. 343-356.
(Brief review of Mesozoic and Cenozoic structural belts of SE and East Asia)

Hayami, I. (1984)- Jurassic marine bivalve faunas and biogeography in Southeast Asia. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia 25, University of Tokyo Press, p. 229-237.
(Unique E Jurassic (Pliensbachian?) heavy bivalve assemblage from Timor with Lithiotis, Pachymegalodon, Gervilleioperna, etc. described from Fatu Lst of Timor by Krumbeck (1923). Upper Jurassic bivalves in W Borneo part of East Asian Province with Philippines and Japan. Timor-Roti, Seram, Misool, etc., are part of Maorian Province with Malayomaorica and Retroceramus haasti)

He, C., S. Dong, M. Santosh & X. Chen (2012)- Seismic evidence for a geosuture between the Yangtze and Cathaysia Blocks, South China. Nature Scientific Reports 3, 2200, p. 1-7.
(online at: https://www.nature.com/articles/srep02200.pdf)
(S China block composed of sub-blocks Yangtze in NW and Cathaysia in SE, , which collided and amalgamated in Neoproterozoic along Jiangnan Orogen. Felsic lower crust of Cathaysia Block and Jiangnan orogenic belt may represent fragments derived from Gondwana supercontinent)

Heine, C. (2002)- The tectonic evolution of the Northwest Shelf of Australia and southern Southeast Asia. M.Sc. Thesis Ruhr-Universat Bochum and University of Sydney, p. 1-94.
(online at: www.earthbyte.org/people/christian/media/Heine_02_MScThesis_e-version.pdf)
(Argo and Gascoyne Abyssal Plains off NW Australia are the only preserved patches of Tethyan ocean floor; rest destroyed by subduction. W Burma Block identified as continental fragment breaking up from NW Shelf in Late Jurassic and accreted to SE Asian mainland in Santonian-Coniacian (85-80Ma) near W Thailand)

Heine, C., R.D. Muller & C. Gaina (2004)- Reconstructing the lost Eastern Tethys Ocean basin: convergence of the SE Asian margin and marine gateways. In: P. Clift et al. (eds.) Continent-ocean interactions within East Asian marginal seas, American Geophys. Union (AGU), Geophys. Monograph Ser. 149, p. 37-54.
(Reconstruction of E Tethys (Mesotethys and Neotethys) ocean basin for last 160 Myr, with reconstructions in 20 Myr increments, constrained by magnetic anomalies in Argo and Gascoyne abyssal plains of Australia NW shelf, assuming symmetrical spreading, etc.)

Helmcke, D. (1983)- On the Variscan evolution of Central Mainland Southeast Asia. Earth Evolution Sciences, 1982, 4, p. 309-319

Helmcke, D. (1984)- The orogenic evolution (Permian-Triassic) of central Thailand. Implications on paleogeographic models for mainland SE Asia. Mem. Soc. Geologique France, N.S., 147, p. 83-91.

Helmcke, D. (1985)- The Permo-Triassic ôPaleotethysô in mainland Southeast Asia and adjacent parts of China. Geol. Rundschau 74, 2, p. 215-228.
(Discussion of geodynamic evolution of mainland SE Asia and China. Permo-Triassic 'Paleotethys' suture must be expected S of Tibet and in Burma. All sutures in Thailand, Vietnam and Yunnan already closed during Paleozoic)

Helmcke, D., R. Ingavat-Helmcke & D. Meischner (1993)- Spatvariszische Orogenese und Terranes in Sudost-Asien. Gottinger Arbeiten Geologie Palaeontologie, 58, p. 29-38.
('Late Variscan orogenesis and terranes in Southeast Asia')

Henderson, R.A., J.S. Crampton, M.E. Dettmann, J.G. Douglas, D. Haig, S. Shafik, J.D. Stilwell & R.A. Thulborn (2000)- Biogeographical observations on the Cretaceous biota of Australasia. In: A.J. Wright et al. (eds.) Palaeobiogeography of Australasian faunas and floras, Mem. Assoc. Australasian Palaeontologists (AAP) 23, p. 355-404.
(Overview of Cretaceous macrofauna, microfauna, flora in Australia. Maximum paleobiogeographic gradients in Albian, Late Campanian and Maastrichtian)

Hennig, D., B. Lehmann, D. Frei, B. Belyatsky, X.F. Zhao, A.R. Cabral, P.S. Zeng, M.F. Zhou & K. Schmidt (2009)- Early Permian seafloor to continental arc magmatism in the eastern Paleo-Tethys: U-Pb age and Nd-Sr isotope data from the southern Lancangjiang zone, Yunnan, China. Lithos 113, 3/4, p. 408-422.

(SW Yunnan complex geological evolution of Paleo-Tethys and Eurasia-Gondwana collision at end of Paleozoic. S Lancangjiang zone at Laos border gabbros with U-Pb zircon age of 292 Ma, indicative of E Permian sea-floor spreading. Also arc-like andesites and granodiorite intrusions with zircon ages of 284-282 Ma. Point to Permian subduction of oceanic crust between Lincang Block and Lanping-Simao Block. M Triassic Lincang granite (239 Ma) batholith marks closure of Paleo-Tethys. Nd-model ages from 1.7- 2.1 Ga point to Paleoproterozoic basement, probably fragment of Yangtze Block)

Herngreen, G.F.W., M. Kedves, L.V. Rovnina & S.B. Smirnova (1996)- Cretaceous palynological provinces: a review. In: J. Jansonius & D.C. MacGregor (eds.) Palynology: principles and applications, American Assoc. Stratigr. Palynologists (AASP) Found. 3, p. 1157-1188.
(Includes map of Albian-Cenomanian tropical-subtropical Elaterosporites microfloral province (peaking in subtropical arid climate?). Also known from PNG)

Hirsch, F., K. Ishida, T. Kozai & A. Meesook (2006)- The welding of Shan-Thai. Geosciences J. (Geol. Soc. Korea), 10, 3, p. 195-204.
(online at: www.geosciences-journal.org/home/journal/...)
(Shan-Thai Terrane is remnant of 'poly-island' Paleo-Tethys oceanic system in SE Asia. It is composite terrane, with Cathaysian internal elements and transitional 'Sibumasu' central part. External 'Shan' elements left Gondwana last and have clear cold-water imprint. Final welding and Paleotethys closure in end Triassic-earliest Jurassic Late Indosinian event. Cenozoic Himalayan escape tectonics compressed Shan-Thai, opened Gulf of Thailand and disrupted original alignment of Gondwana-Tethys divide)

Hobbs, W.H. (1944)- Mountain growth, a study of the Southwestern Pacific Region. Proc. American Philosophical Soc. 88, 4, p. 221-268.
(Old review of SW Pacific mountain systems, including Sunda-Banda Arc)

Holcombe, C.J. (1977)- How rigid are the lithospheric plates? Fault and shear rotations in southeast Asia. J. Geol. Soc., London, 134, p. 325-342.
(Significant fault movement in Tertiary in continental SE Asia. Three rotations: Indochina subplates wrench rotation, Sunda shear rotation, and rotation of Malay Peninsula and Sunda Platform by movements along Ranong and Semangko faults)

Holloway, J. & R. Hall (1998)- SE Asian geology and biogeography: an introduction. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publ., p. 1-23.

Holloway, J. (1998)- Geological signal and dispersal noise in two contrasting insect groups in the Indo-Australian tropics: R-mode analysis of patterns in Lepidoptera and cicadas. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publishers, p. 291-314.

Honza, E. & K. Fujioka (2004)- Formation of arcs and backarc basins inferred from the tectonic evolution of Southeast Asia since the Late Cretaceous. Tectonophysics 384, p. 23-53.
(New data in NW West Philippines basin Daito Ridge used to reconstruct Late Cretaceous- Tertiary plate tectonics of SE Asia. In model S Borneo rotates 90° CCW since Cretaceous)

Hou, Z. & H. Zhang (2015)- Geodynamics and metallogeny of the eastern Tethyan metallogenic domain. Ore Geology Reviews 70, p. 346-384.
(Major review of metallogeny of eastern Tethysides)

Houseman, G. & P. England (1993)- Crustal thickening versus lateral expulsion in the Indian-Asian continental collision. J. Geophysical Research 98, B7, p. 12233-12249.
(Since beginning of continental collision between India and Asia ~2500 km of convergence. N-ward movement of India accommodated by major internal deformation of Asian lithosphere, incl. crustal thickening in and around Tibetan Plateau. Experimental modeling suggests crustal thickening dominant mode of indentation

strain accommodation. Although common 10- 30° paleomagnetic rotations, probably not accompanied by large E-ward 'extrusion')

Hsu, K.J., J. Li, H. Chen, Q. Wang, S. Sun & A.M.C Sengor (1990)- Tectonics of South China: key to understanding West Pacific geology. Tectonophysics 183, p. 9-39.
(S China is composite of Proterozoic-Mesozoic orogenic belts. Three continental blocks: Yangzi, Huanan, and Dongnanya. Yangzi separated from Gondwana in Late Precambrian. N margin of Huanan was N active Gondwana margin until Devonian. Huanan and Yangzi collided in Triassic. Huanan separated in Devonian, with continuous Devonian-Triassic sequence on S passive margin of Huanan. Dongnanya with Permian glacial marine deposits, separated from Gondwana in Late Permian and may be E continuation of Sibumasu)

Huang, H. & X. Jin (2014)- Paleoclimatic implications of Permian fusulinids and carbonates from the Baoshan Block, southwestern China. In: R. Rocha et al. (eds.) Strati 2013- First Int. Congress on Stratigraphy, At the cutting edge of stratigraphy, Springer, p. 1105-1108.
(Permian fusulinids of Baoshan Block (= part of 'Sibumasu Group') lower generic diversity than coeval tropical assemblages. Dominant elements change from mainly eurytopic genera in E Permian/Sakmarian grainstones (>30°S; Pseudofusulina, Eoparafusulina) to warmer water algal-foram limestones in M Permian Murghabian (with Schwagerina, Eopolydiexodina) and Midian (with Sumatrina, Verbeekina))

Huang, W., D.J.J. Hinsbergen, P.C. Lippert, Z. Guo & G. Dupont-Nivet (2015)- Paleomagnetic tests of tectonic reconstructions of the India-Asia collision zone. Geophysical Research Letters 42, 8, p. 2642-2649.
(Late Cretaceous and Paleogene paleolatitudes of Tibetan Himalaya difficult to reconcile with current hypotheses of collision age (34, 52 or 65 Ma) and inferred Asian shortening (600-900km))

Huang Z.C., D.P. Zhao & L. Wang (2015)- P wave tomography and anisotropy beneath Southeast Asia: Insight into mantle dynamics. J. Geophysical Research, Solid Earth, 120, 7, p. 5154-5174.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2015JB012098/epdf)
(Tomographic images of mantle under SE Asia show high-velocity zones high-V zones around SE Asia which generally represent subducting slabs. Slabs generally extend down to the Mantle Transition Zone. Low-velocity zones with trench-normal anisotropy in uppermost mantle, indicating back-arc spreading or secondary mantle-wedge flow induced by slab subduction. Trench-parallel anisotropy in deep upper mantle reflects structures in subducting slab or in upper mantle surrounding slab. Gap in slab under area between Sumatra and Java)

Hutchison, C.S. (2005)- The geological framework. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 3-23.
(Review of SE Asia tectonic framework)

Isbell, J.L., M.F. Miller, K.L. Wolfe & P.A. Lenaker (2003)- Timing of late Paleozoic glaciation in Gondwana: was glaciation responsible of the development of northern hemisphere cyclothems? In: M.A Chan & A.W. Archer (eds.) Extreme depositional environments: mega end members in geologic time, Geol. Soc. America (GSA), Spec. Paper 370, p. 5-24.

Izokh, E.P. (1997)- Australasian tektites and a global disaster of about 10,000 years BP, caused by collision of the Earth with a comet. Russian Geol. Geophysics 38, 3, p. 669-699.
(Based on evidence from Vietnam, age of gigantic Australasian Tektite Strewn Field here considered to be close to 10,000 years ago, much younger than commonly accepted age of 0.7 Ma, and may have triggered global climate changes and mass extinctions at Pleistocene/Holocene boundary)

Jenny, C. & G. Stampfli (2000)- Permian palaeogeography of the Tethyan Realm. Permophiles 37, p. 24-33.
(Well-illustrated series of Tethys reconstructions for Late Carboniferous- Late Permian, showing generally accepted model of Paleozoic ocean N of Cimmerian continents (Paleotethys), a Late Paleozoic- Mesozoic ocean S of this continent (Neotethys; = Mesotethys of other authors?;JTvG), and M Jurassic ocean (Alpine Tethys))

Jin, X.C. & X.N. Yang (2004)- Paleogeographic implications of the *Shanita-Hemigordius* fauna (Permian foraminifer) in the reconstruction of Permian Tethys. Episodes 27, 4, p. 273-278.
(online at: www.episodes.co.in/www/backissues/274/273-278%20Jin.pdf)
(Permian foraminifer Shanita of special paleobiogeographic importance. Occurs in Gondwana-derived blocks, in strip from Peninsular Thailand to Burma, S China, S Afghanistan, Oman, etc. to Turkey. Often associated with Hemigordius. Shanita-Hemigordius fauna considered as marker of marginal Gondwana environment (more specifically 'Cimmerian' strips that rifted off Gondwana in M-L Permian?; JTvG))

Jin, X.C. & K. Zhao (2001)- Permo-Triassic paleogeographic, paleoclimatic and paleoceanographic evolutions in eastern Tethys and their coupling. Science in China, D, 44, 11, p. 968-978.
(Reconstructions of paleogeography and paleoceanography of Chihsian (E Permian), Wujiapingian, Anisian and Norian (Late Triassic) intervals in E Tethys. Paleogeographic change of the E Tethys and N-ward shift of Pangea during Permo-Triassic periods governed coeval paleocurrent pattern and evolution)

Jones, P.J., I. Metcalfe, B.A. Engel, G. Playford, J. Rigby, J. Roberts, S. Turner & G.E. Webb (2000)- Carboniferous palaeobiogeography of Australasia. In: A.J. Wright (ed.) Palaeobiogeogeography of Australasia, Mem. Assoc. Australasian Palaeontologists (AAP) 23, p. 259-286.
(Mainly on Carboniferous biostratigraphy of Australian region and Australian-derived SE Asia terranes)

Kamata, Y., K. Ueno, H. Hara, M. Ichise, T. Charoentitirat, P. Charusiri, A. Sardsud & K. Hisada (2009)- Classification of the Sibumasu and Paleo-Tethys tectonic division in Thailand using chert lithofacies. Island Arc 18, 1, p. 21-31.
(Two chert types used to map Paleotethys suture in N Thailand- Malaysia: (1) Devonian- M Triassic pelagic chert (common radiolarians, no terrigenous material) as blocks in sheared matrix, originated in Paleo-Tethys; (2) Triassic hemipelagic chert (scattered radiolarian tests and calcareous organisms such as foraminifera), accumulated on E margin of Sibumasu Block. Cherts in two N-trending zones: W zone hemipelagic cherts and glaciomarine successions on Precambrian basement (Sibumasu), E zone pelagic chert and limestone (Paleo-Tethys). Boundary between zones is N-trending, E-dipping, low-angle thrust, resulting from collision of Sibumasu and Indochina blocks)

Kanmera, K. & K. Nakazawa (1973)- Permian- Triassic relationship and faunal changes in the eastern Tethys. Canadian Soc. Petrol. Geol., Mem. 2, p. 100-119.
(Audley-Charles et al. 1979: Permian Maubisse Fm of Timor close affinities with Asian facies and faunas)

Kasuya, A., Y. Isozaki & H. Igo (2012)- Constraining paleo-latitude of a biogeographic boundary in mid-Panthalassa: fusuline province shift on the Late Guadalupian (Permian) migrating seamount. Gondwana Research 21, p. 611-623.
(Using Permian fusulinid forams and paleomagnetic data to reconstruct low latitude origin of M Permian seamount, which accreted to S China (Japan) margin in Jurassic. Two or three coeval M Permian biogeographic territories in Tethys-Panthalassa realms: Neoschwagerina-Yabeina territory (>12 °S) and Colania-Lepidolina territory (<12°), and higher latitude Eopolydiexodina territory (>~25°S))

Katili, J.A. (1971)- Neotectonics of Southeast Asia. Bull. Assoc. Francaise Etude du Quaternaire 4, p. 851-856.

Kato, H., A. Reedman, Y. Shimazaki et al. (eds.) (2016)- Stone heritage of East and Southeast Asia. Geol. Survey of Japan and CCOP, Thailand, p. 1-234.
(online at: www.ccop.or.th/download/pub/ccop_stone_book_low_res.pdf)
(Examples of use of natural stone in construction of temples, monuments, castles, forts, etc., in 9 SE Asian countries. Incl. chapter on Indonesia by S. Baskoro (not much detail on rock types and nothing on West Papua)

Kennett, J.P., G. Keller & M. Srinivasan (1985)- Miocene planktonic foraminiferal biogeography and paleoceanographic development of the Indo-Pacific region. In: J.P. Kennett (ed.) The Miocene ocean: paleooceanography and biogeography, Geol. Soc. America (GSA) Mem. 163, p. 197-236.
(Planktonic foraminifera distribution patterns suggest closure of Indonesian Seaway around 13-12 Ma)

Khan, P.K., S. Shamim, M. Mohanty, P. Kumar & J. Banerjee (2017)- Myanmar-Andaman-Sumatra subduction margin revisited: insights of arc-specific deformations. J. Earth Science (China) 28, 4, p. 683-694.
(online at: http://en.earth-science.net/PDF/20170721111758.pdf)
(Analysis of concave and convex sectors of subducting Indian Ocean plate along >3000km long Myanmar-Andaman-Sumatra active margin from earthquake data)

Kiessling W., E. Flugel & J. Golonka (1999)- Paleoreef maps: evaluation of a comprehensive database on Phanerozoic reefs. American Assoc. Petrol. Geol. (AAPG) Bull. 83, 10, p. 1552-1587.

Kiessling W., E. Flugel & J. Golonka (2003)- Patterns of Phanerozoic carbonate platform sedimentation. Lethaia 36, 3, p. 195-225.
(Review of carbonate platforms and distribution from Ordovician-Neogene)

Kimura, T. (1984)- Mesozoic floras of East and Southeast Asia, with a short note on the Cenozoic floras of Southeast Asia and China. In: T. Kobayashi et al. (eds.) Geology and Palaeontology of Southeast Asia 25, University of Tokyo Press, p. 325-350.
(Review of Triassic- Cretaceous floras in SE Asia and China. Late Triassic- E Jurassic flora from the Krusin Fm near Kuching, W Sarawak is part of Indochina/ South China Dictyophyllum-Chlathropteris floristic province)

Kimura, T. (1985)- Notes on the present status of Late Triassic floras in East and Southeast Asia. In: III Congr. Latino America Paleontology, Mexico City, Simposium sobre Floras Trias, Mem. 3, p. 5-9.

Kimura, T. (1987)- Geographical distribution of Paleozoic and Mesozoic plants in East and Southeast Asia. In: A. Taira & M. Tashiro (eds.) Historical biogeography and plate tectonic evolution of Japan and Eastern Asia, Terra Science Publ., Tokyo, p. 135-200.

Kirillova, G.L. (1993)- Types of Cenozoic sedimentary basins of the East Asia and Pacific Ocean junction area. Palaeogeogr. Palaeoclim. Palaeoecology 105, p. 17-32.
(Classification of marginal basins in W Pacific (incl. Philippine Sea, E China Sea, etc.): (1) oceanic and transitional crust basins: mainly deep water trenches, back-arc, inter-arc, forearc and intra-arc basins; (2) basins with continental crust: marginal-continental shelf and intracontinental basins, filled with alluvial deltaic and lacustrine sediments up to 11 km thick)

Klimetz, M.P. (1987)- The Mesozoic tectonostratigraphic terranes and accretionary heritage of south-eastern mainland Asia. In: E.G. Leitch & E. Scheibner (eds.) Terrane accretion and orogenic belts, American Geophys. Union (AGU) Geodyn. Ser. 19, p. 221-234.
(On mainland SE Asia tectonic terranes, with focus on Mesozoic accretionary history of China)

Kobayashi, F. (1997)- Middle Permian biogeography based on fusulinacean faunas In: C.A. Ross et al. (eds.) Late Paleozoic foraminifera, their biostratigraphy, evolution and paleoecology, and the Mid-Carboniferous boundary, Cushman Found. Foraminiferal Research, Spec. Publ. 36, p. 73-76.
(Permian fusuline foram faunas three provinces: (A) Western Tethys, with Yabeina, Afghanella and Sumatrina and without Lepidolina; extends from Mediterranean to N Arabia; (B) Eastern Tethys, with diverse neoschwagerinids and verbeekinids, incl. Afghanella and Sumatrina, covering SE Asia, S China, Indochina, and limestone units in SW Japan Permian accretionary complex; (C) Panthalassan: without sumatrinids, dominant Yabeina and less Lepidolina, in exotic limestone blocks around Circum-Pacific (N America, Siberia, Japan))

Kobayashi, F. (1997)- Middle Permian fusulinacean faunas and paleobiogeography of exotic terranes in the Circum-Pacific. In: C.A. Ross et al. (eds.) Late Paleozoic foraminifera, their biostratigraphy, evolution and paleoecology, and the Mid-Carboniferous boundary, Cushman Found. Foraminiferal Research, Spec. Publ. 36, p. 77-80.

Kobayashi, F. (1999)- Tethyan uppermost Permian (Dzhulfian and Dorashamian) foraminiferal faunas and their paleogeographic and tectonic implications. Palaeogeogr. Palaeoclim. Palaeoecology 150, p. 279-307.
(Latest Permian Palaeofusulina fauna serves as paleogeographic constraints on E and SE Asian terranes. Common in S China, Indochina and E Malaya shelf limestone facies. Also present on Early Permian rifted terranes, like N Thailand (Sibumasu terrane) and Tibet (Qiangtang Terrane). Absence of Palaeofusulina fauna and presence of late Midian Lepidolina multiseptata faunas in Lhasa Terrane (Tibet) and Woyla Terrane in Sumatra important for identifying rift-drift-collision process of Gondwana-affinity terranes)

Kobayashi, T. (1944)- Reciprocal development of radiolarian rocks as between Asiatic and Australian sides. Proc. Imperial Academy (Tokyo) 20, 4, p. 234-238.
(online at: https://www.jstage.jst.go.jp/article/pjab1912/20/4/20_4_234/_pdf)
(Brief review of radiolarian bearing formations in Japan, SE Asia, Australia. Sambosan and Higashigawa suites of Japan mainly Permo-Triassic age. Also in chert series in Malay Peninsula, Tuhur Fm of Sumatra and Danau Fm in Borneo. Danau Fm suggested by Hinde to be Jurassic age, but here thought to be mostly Permo-Triassic (based on Krekeler observations). Danau facies appears continues into Philippines via Palawan and Jolo or Sulu arcs, where radiolarian cherts are called Babuyan Fm

Kobayashi, T. (1973)- The early stage of the Burmese-Malayan Geosyncline. In: B.K. Tan (ed.) Proc. Reg. Conference on the Geology of SE Asia, Kuala Lumpur 1972, Bull. Geol. Soc. Malaysia 6, p. 118-129.
(online at: www.gsm.org.my/products/702001-101351-PDF.pdf)
(Discussion of belt of Paleozoic (Ordovician- Permian) and Triassic rocks, extending from Shan Plateau (Myanmar) and W Yunnan (S China)in N through Thai-Malayan Peninsula in south and continuing into Borneo. No figures, maps)

Kobayashi, T. (1978)- The Jurassic palaeogeography of Japan and Southeast Asia. Proc. Japan Academy 54, B 10, p. 583-588.

Kobayashi, T. (1979)- The *Trigonioides* basins and the Cretaceous palaeogeography of East and Southeast Asia. Proc. Japan Academy 55, B 1, p. 1-5.
(online at: www.journalarchive.jst.go.jp/...)
(On distribution of Early-Middle Cretaceous non-marine bivalve mollusc Trigonioides in SE Asia, including in continental facies of Rantaulajung Fm near Martapura, SE Kalimantan with Upper Cretaceous conchostracans)

Kobayashi, T. & M. Tamura (1983)- On the Oriental Province of the Tethyan Realm in the Triassic period. Proc. Japan Academy, Ser. B, 59, 7, p. 203-206.
(Short paper on provinciality in Triassic bivalves. Oriental Province of Tethys with species indigenous to E and SE Asia. Stretches from Kashmir, Burma, S China, Malay Peninsula, to E Indonesia. No maps)

Koken, E. (1907)- Indisches Perm und die Permische Eiszeit. Neues Jahrbuch Mineral. Geol. Palaeont., Festband 1907, p. 446-546.
('The Permian of the Indies and the Permian glacial period')

Konyukhov, A.I. (2009)- Geological structure, sedimentation conditions, and petroleum potential of sedimentary basins in Southeast Asia. Lithology and Mineral Res. 44, 5, p. 427-440.
(Russian review of SE Asian basins. Most sedimentary basins of SE Asia related to processes of rifting that activated in Paleo-Eocene after consolidation of continental crust of the Sunda (Malay) microplate, which ended in Late Cretaceous. Wide development of lacustrine basins, which accumulated main source rocks for oil and gas in region)

Kozur, H. (1973)- Faunenprovinzen in der Trias und ihre Bedeutung fur die Klarung der Paleogeographie. Geol. Palaont. Mitteilungen Innsbruck 3, 8, p. 1-41.
(online at: www2.uibk.ac.at/downloads/c715/gpm_03/03_08_001-041.pdf)
('Faunal provinces in the Triassic and their significance for paleogeography'. Paleobiogeography based on conodonts: Triassic of SE Asia, incl. Timor, is in Asiatic Tethyan faunal province. No maps)

Kristan-Tollmann, E. (1987)- Triassic of the Tethys and its relations with the Triassic of the Pacific realm. In: K.G. MacKenzie (ed.) Int. Symposium on Shallow Tethys 2, Wagga Wagga, Balkema, Rotterdam, p. 169-186.

Kristan-Tollmann, E. (1988)- Unexpected microfaunal communities within the Triassic Tethys. In: M.G. Audley-Charles & A. Hallam (eds.) Gondwana and Tethys, Geol. Soc., London, Spec. Publ. 37, p. 213-223.
(Remarkable uniformity in Triassic faunas throughout Tethyan region. Both planktonic and benthic organisms. Very little on SE Asia)

Kristan-Tollmann, E. (1988)- Pandemic ostracod communities in the Tethyan Triassic. In: R. Whatley & C. Maybury (eds.) Ostrocoda and global events, British Micropal. Soc. Publ., p. 541-544.
(Tethyan Late Triassic ostracodes in Sahul Shoals 1 well, 1880-1890m, Australia NW Shelf. Most common species Cytherella acuta, with other Tethyan species Nodobairdia mammilata and Tethyscythere austriaca. Similar Triassic ostracode faunas on N and S sides of Tethys (Timor, NW Australia))

Krobicki, M. & J. Golonka (2006)- Caledonian orogeny in Southeast Asia: questions and problems. Geolines, 20, p. 75-78. *(Extended Abstract)*
(online at: http://geolines.gli.cas.cz/fileadmin/volumes/volume20/G20-076.pdf)

Krobicki, M. & J. Golonka (2009)- Palaeobiogeography of Early Jurassic *Lithiotis*-type bivalve buildups as recovery effect after Triassic/Jurassic mass extinction and their connections with Asian palaeogeography. In: Proc. 5th Int. Symposium of IGCP-516, Geologial anatomy of East and South Asia, Kunming, Acta Geoscientica Sinica 30, Suppl. 1, p. 30-33.
(online at: www.cagsbulletin.com/)
(Buildups of large bivalves of Lithiotis group are first reefal features after end-Triassic extinction. Present across S Tethys margin, including Nepal-Tibet(Lhasa Block?) and Timor (Krumbeck 1923))

Lacassin, R., P.H. Leloup & P. Tapponnier (1993)- Bounds on strain in large Tertiary shear zones of SE Asia from boudinage restoration. J. Structural Geol. 15, p. 677-692.
(Restoration of stretched, boudinaged layers in mylonitic gneisses of Oligo-Miocene Red River-Ailao Shan (Yunnan) and Wang Chao (Thailand) shear zones suggests layer-parallel extension of 250-870%, implying minimum left-lateral strike-slip displacements of ~330 km (Red River-Ailao Shan) and ~35 km (Wang Chao))

Lam, H.J. (1930)- Het genetisch-plantengeografisch onderzoek van den Indischen Archipel en Wegenerôs verschuivingstheorie. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 2, 47, p. 553-581.
('The genetic plant-geographic investigation of the Indies Archipelago and Wegener's continental drift theory')

Lambiase, J.J. (2011)- The stacked-channel reservoir sands of SE Asia. SEAPEX Expl. Conf., Singapore 2011, Presentation 26, 40p. *(Presentation package)*

Langford, R.P., B. Cairncross & M. Friedrich (1992)- Permian coal and palaeogeography of Gondwana. Bureau Mineral Res. Geol. Geoph., Canberra, Record 1991/95, Palaeogeography 39, p. 1-136.
(www.ga.gov.au/corporate_data/14505/Rec1991_095.pdf)
(Review of Early and Late Permian coal distribution across Gondwana (Australia- W Papua, India, Antarctica, etc.). Coal deposition mainly in paleolatitudes from ~45° S to 75° S, representing cold to cool temperate climate with high precipitation, ideal for peat swamp development (Permian equatorial peat swamp coal deposits in Cathaysia not discussed). Most prolific period of coal deposition late E Permian, during climatic amelioriation after glaciation (No details on thin Permian coals of West Papua))

Laveine, J.P., B. Ratanasthien & A.H. Hussin (1999)- The Carboniferous floras of Southeast Asia: implications for the relationships and timing of accretion of some Southeast Asian blocks. In: I. Metcalfe (ed.) Gondwana dispersion and Asian accretion, IGCP 321 Final Results Volume, Balkema, Rotterdam, p. 229-246.

(Carboniferous flora of E Peninsular Malysia ('Kuantan flora' of Asama) and NE Thailand typical Euramerican aspect, suggesting Indo-China Block was in terrestrial connection with N Paleotethyan landmass, probably S China Block since at least E Carboniferous. E Malaya Block also part of North Paleotethyan domain)

Laveine, J.P., S. Zhang & Y. Lemoigne (2000)- Palaeophytogeography and palaeogeography, on the basis of examples from the Carboniferous. Revue Paleobiologie, Geneve 19, 2, p. 409-425.

Laveine, J.P., S. Zhang, Y. Lemoigne & B. Ratanasthien (1999)- Paleogeography of East and Southeast Asia during Carboniferous times on the basis of paleobotanical information: some methodological comments and additional results. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium on Shallow Tethys (ST) 5, Chiang Mai, p. 55-72.

Le Fort, P., M. Colchen & C. Montenat (eds.) (1986)- Evolution des domaines orogeniques d'Asie meridionale (de la Turquie a l'Indonesie). Livre jubilaire en l'honneur de Pierre Bordet, Mem. Sciences de la Terre 47, Fondation Scientifique de la geologie et de ses application, Nancy, p. 1-429.
('Evolution of the orogenic domains of southern Asia (from Turkey to Indonesia): volume in honor of Pierre Bordet')

Le Pichon, X., M. Fournier & L. Jolivet (1992)- Kinematics, topography, shortening, and extrusion in the India-Eurasia collision. Tectonics 11, p. 1085-1098.
(Spatial distribution of topography in Greater India- Eurasia suggest transfer of lower crust to mantle by eclogitization and lateral extrusion account for minimum of one third/one half of total amount of shortening between India -Asia since 45 Ma)

Li, C. & R. van Der Hilst (2010)- Structure of the upper mantle and transition zone beneath Southeast Asia from traveltime tomography Structure of the upper mantle and transition zone beneath Southeast Asia from traveltime tomography. J. Geophysical Research, Solid Earth, 115, B07308, p. 1-19.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2009JB006882/epdf)
(Tomographic sections mainly in area of India-Asia collision and China margin)

Li, C., R.D. van der Hilst, E.R. Engdahl & S. Burdick (2008)- A new global model for P wave speed variations in Earthôs mantle: Geochem. Geophys. Geosystems 9, 5, Q05018, 21p.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2007GC001806/epdf)
(Include examples of tomography sections across Indonesia))

Li, C., R.D. van der Hilst & M.N. Toksoz (2006)- Constraining P-wave velocity variations in the upper mantle beneath Southeast Asia. Physics Earth Planetary Interiors 154, 2, p. 180-195.
(Tomographic inversions reveal high-velocity roots beneath Archean Ordos Plateau, Sichuan Basin and other continental blocks in SE Asia. Beneath Himalayan Block high velocities, associated with subduction of Indian lithospheric mantle, visible above 410 km discontinuity, and may not connect to remnant of Neo-Tethys oceanic slab in lower mantle. Only SW part of Tibetan plateau underlain by Indian lithosphere)

Li, C.F. & J. Wang (2016)- Variations in Moho and Curie depths and heat flow in Eastern and Southeastern Asia. Marine Geophysical Research 37, 1, p. 1-20.
(Oldest continental and oceanic domains (N China craton, Pacific and Indian Ocean) thermally perturbed by events probably linked to small-scale convection or serpentinization in mantle and volcanic seamounts and ridges. W Philippine Sea Basin anomalously small Curie depths. W Pacific marginal seas have lowest Moho temperature; contrary in most parts of easternmost Eurasian continent.Magmatic processes feeding Permian Emeishan large igneous province along plate boundary may be caused by tectonic processes along plate margins, rather than by deep mantle plume)

Li, P., Gao Rui, J. Cui & Guan Ye (2004)- Paleomagnetic analysis of eastern Tibet: implications for the collisional and amalgamation history of the Three Rivers Region, SW China. J. Asian Earth Sci. 24, p. 291-310.

(Analysis of paleolatitudes and latitudinal displacements for S China, Simao, Baoshan, Shan-Thai, Indochina, Qiangtang, Lhasa and Himalayan blocks: (1) Simao Block S China-derived; (2) Baoshan and Shan-Thai blocks rapid N drift from Late Carboniferous- Late Permian; (3) Baoshan Block collided with Simao Block in Late Permian and continued to drift N, together with S China and Shan-Thai blocks until Late Triassic; (4) Paleo-Tethys separating Baoshan and Simao blocks possibly opened in E Silurian; (5) Meso-Tethys ranged in age from E Permian- E Cretaceous, and reached greatest width of ~42° latitude in Late Triassic)

Li, S., E. Advokaat, D.J.J.van Hinsbergen, M. Koymans, C. Deng & R. Zhu (2017)- Paleomagnetic constraints on the Mesozoic-Cenozoic paleolatitudinal and rotational history of Indochina and South China: review and updated kinematic reconstruction. Earth-Science Reviews 171, p. 58-77.
(Review of paleomagnetic data suggests (1) no significant rotations of S China Block relative to Eurasia since latest Jurassic; (2) No paleomagnetically resolvable S-ward motion of Indochina Block (inclinations lower than expected, probably due to inclination shallowing in sediments; (3) large rotating blocks in N Indochina and SE Tibetan margin (up to 70° CW), more than ~10-15° rotation of stable SE Indochina Block. Blocks bounded by fold-thrust belts and strike-slip faults, accommodating Cenozoic block rotations. NW part of Indochina extruded 350 km more along Ailao Shan-Red River fault than SE part, accommodated by internal NW Indochina rotation and deformation. 250 km of extrusion of SE part of Indochina)

Li, S., B.M. Jahn, S. Zhao, L. Dai, X. Li, Y. Suo, L. Guo, Y.M. Wang et al. (2017)- Triassic southeastward subduction of North China Block to South China Block: insights from new geological, geophysical and geochemical data. Earth-Science Reviews 166, p. 270-285.
(Subduction prior to assembly of S China and N China blocks traditionally considered directed N-ward, but new tectonic model suggests SE ward subduction of N China under S China. S margin of N China Block passive margin in Triassic, without arc magmatism, etc. Suture lateral subduction zone rather than collision zone)

Li, S.Z., S.J. Zhao, X. Liu, H.H. Cao, S. Yu, S., Li, I. Somerville, S.Y. Yu & Y.H. Suo (2017)- Closure of the Proto-Tethys Ocean and Early Paleozoic amalgamation of microcontinental blocks in East Asia. . Earth-Science Reviews, p. *(in press)*
(Proto-Tethys paleo-ocean located between Tarim/N China and Sibamusu/Baoshan blocks opened from rifting of supercontinent Rodinia and mainly closed at end of E Paleozoic. Several continents/microcontinents in ocean. S suture marked by Longmu Co-Shuanghu-Changning-Menglian Suture. Tarim- Alax- N China Block to N of the Proto-Tethys Ocean no clear affinity with Gondwana, had S-ward subduction polarity and collided with Gondwana along N margin of Gondwana in E Devonian. Etc.)

Li, X.X. (1986)- The mixed Permian Cathaysia-Gondwana flora. The Palaeobotanist 35, 2, p. 211-222.
(online at: http://14.139.63.228:8080/pbrep/bitstream/123456789/1262/1/PbV35N2_211.pdf)
(Mixed Gondwanan- Cathaysian floras from Turkey to Saudi Arabia, Kashmir to Western New Guinea)

Li, X.X. & G.L. Shen (1996)- A brief review of the Permian macrofloras in southeast Asia and their phytological delimitation. J. Southeast Asian Earth Sci. 13, p. 161-170.
(Overview of Permian macrofloras of SE Asia, with map of Permian phytogeographical provinces. Djambi flora of C Sumatra is southernmost Cathaysian flora. New Guinea Permian flora mixed Gondwanan and Cathaysian)

Li, X.X. & X.Y. Wu (1994)- The Cathaysian and Gondwana floras; their contribution to determining the boundary between eastern Gondwana and Laurasia. J. Southeast Asian Earth Sci. 9, 4, p. 309-317.
(Permian floras suggest boundary between E Gondwana and Laurasia runs along Bangongeo-Dengqen suture of Qinghai-Xizang plateau, turns S near Qamdo in E Xizang, then possibly extends through Baoshan District of W. Yunnan to link up with Pham Sore and Bentong-Raub sutures of Thailand- Peninsular Malaysia, from where it continues further S across E Sumatra to Indian Ocean. Jambi flora of Sumatra, Jengka and Linggiu floras of Malaysia and Phetchabun and Loei floras of Thailand all contain elements of Cathaysian flora. W New Guinea Permian floras mixed Cathaysian-Gondwana flora.)

Li, X.X. & X.Y. Wu (1996)- Late Paleozoic phytogeographic provinces in China and its adjacent regions. Review Palaeobotany Palynology 90, p. 41-62.

(Review of Devonian-Permian floral provinces of China. Cathaysian Floral province two major blocks: Sino-Korean-Tarim (N China) and S China Block, both vegetated by Euramerican floras until Late Carboniferous when Cathaysian elements first began to differentiate Two Cathaysian provinces established by Permian. Cathaysian flora developed in tropical, ever-wet climatic zone. Tropical conditions persisted in S China throughout Permian, but in N China, by early Late Permian alternating wet and dry climates, and by late Late Permian most of N Hemisphere in extreme arid conditions. Large leaved forms like Taeniopteris more common in N China and Gigantopteris almost completely restricted to S China. S China also with abundant Psaronius tree ferns and Gleicheniaceous ferns)

Li, Z.X. & C.M. Powell (2001)- An outline of the palaeogeographic evolution of the Australasian region since the beginning of the Neoproterozoic. Earth-Science Reviews 53, p. 237-277.
(Plate reconstructions of Australian region from 1000 Ma- recent)

Li, Z.X., L. Zhang & C.M. Powell (1996)- Positions of the East Asian cratons in the Neoproterozoic supercontinent Rodinia. Australian J. Earth Sci. 43, p. 593-604.
(Three major E Asian crustal blocks (Tarim, N China and S China) have records of the Neoproterozoic rifting events that broke up supercontinent Rodinia. Tarim Block may have been adjacent to Kimberley region, S China Block between E Australia and Laurentia, and N China Block adjacent to NW corner of Laurentia and Siberia during E Neoproterozoic. All three blocks probably separated from larger cratons towards end of Neoproterozoic but stayed close to Australian margins of Gondwanaland from Cambrian-Devonian)

Liao, S.Y., D.B. Wang, Y. Tang, F.G. Yin, S.N. Cao, L.Q. Wang, B.D. Wang & Z.M Sun (2015)- Late Paleozoic Woniusi basaltic province from Sibumasu terrane: implications for the breakup of eastern Gondwanaĉs northern margin. Geol. Soc. America (GSA), Bull. 127, 9-10, p. 1313-1330.
(Late Paleozoic detachment of E Cimmerian Sibumasu terrane from Australian Gondwana margin may be initiated by mantle plume of Woniusi basaltic province in Yunnan, SW China (Baoshan Block= N Sibumasu terrane). Woniusi basalt province spread over ~12,000 km2 and ~300-500m thick. Zircon U-Pb ages Late Carboniferous- late E Permian (301-282 Ma), synchronous with basaltic rocks from Panjal Traps, Tethyan Himalaya, Lhasa, and S Qiangtang, forming large, fragmented igneous province, possibly sharing common mantle plume centered in N Greater India. Baoshan Block no thick Permian rift series (basalts mainly E Permian?: overlie glacial diamictite; faunal data suggest post-M Artinskian age (Ueno 2002)?JTvG))

Liao, S.Y., F.G. Yin, Z.M. Sun, D.B. Wang, Y. Tang & J. Sun (2013)- Early Middle Triassic mafic dikes from the Baoshan subterrane, western Yunnan: implications for the tectonic evolution of the Palaeo-Tethys in Southeast Asia. Int. Geology Review 55, 8, p. 976-993.
(Zircon U-Pb data indicate tholeiitic dikes similar to enriched mid-ocean ridge basalts emplaced at N part of Sibumasu terrane at 240± 3 Ma. Mafic dikes interpreted to be generated during suturing of Baoshan (Sibumasu) and Simao (Indochina) subterranes)

Liao, W.H. (1990)- The biogeographic affinities of East Asian corals. In: W.S. McKerrow and C.R. Scotese (eds.) Palaeozoic biogeography and biogeography, Mem. Geol. Soc., London, 12, p. 175-179.
(In E Asia tabulate and rugose corals present from E Ordovician- end Permian. Ordovician corals of N China related to Americo-Siberian region; S China close affinity to E Australia in Early Silurian, but more akin to Urals and C Asia in M-L Silurian. E-M Devonian 5 biogeographic provinces in E Asia: (1) Arctic; (2) Junggar-Hinggan; (3) Uralo-Tian Shan; (4) Paleotethys and (5) S China. In E Permian N and S parts of Asia belong to cold-water Lytvolasma fauna, middle part warm-water Tethyan with Iranophyllum/ Ipciphyllum fauna)

Lin, J.L., M. Fuller & W.Y. Zhang (1985)- Paleogeography of the North and South China blocks during the Cambrian. J. Geodynamics 2, p. 91-114.
(Paleomagnetic results show S China block close to equator in Cambrian, probably adjacent to N Australia. This juxtaposes Cambrian marine basins in S China and Australia, explains stratigraphic similarity between late Precambrian Sinian System in S China and Adelaide System in Australia and continuing fossil affinities in Cambrium- Ordovician. Proposed geographic configuration lasted from late Precambrian (800 Ma)- E

Ordovician (470 Ma). Paleomag from Cambrian of N China block indicates it was in S Hemisphere, with paleontological evidence suggesting it was close to Tibet, Iran and N India during Paleozoic)

Liou, J.G., W.G. Ernst, R.Y. Zhang, T. Tsujimori, B.M. Jahn (2009)- Ultrahigh-pressure minerals and metamorphic terranes- the view from China. J. Asian Earth Sci. 35, p. 199-231.
(Review of Ultra High-Pressure (UHP) metamorphic terranes in China and adjacent areas. These represent continental and oceanic crustal protoliths which experienced P-T conditions near coesite stability field (>~2.7 GPa and ~700°C). Typical products include eclogite, garnet peridotite, and UHP varieties of metapelite, quartzite, marble, paragneiss and orthogneiss. UHP metamorphic assemblages require relatively cold lithospheric subduction to mantle depths. Includes some data from Indonesia (Sulawesi,))

Liu, B.P., Q.L. Feng, C. Chonglakmani & D. Helmcke (2002)- Framework of Paleotethyan archipelago ocean of western Yunnan and its elongation towards north and south. Earth Science Frontiers 9, 3, p. 161-171.
(Changning Menglian belt of W Yunnan continues N to Gangmacuo suture of NW Tibet and S to cryptic suture in N Thailand. Nan Uttaradit suture of NE Thailand probably extends N, but hidden under Mesozoic Cenozoic red beds of Simao basin. No evidence for stable Simao block during Paleotethys stage: sedimentary melanges consist of oceanic bedded cherts, seamount carbonates and passive margin clastics (Mae Sariang zone of NW Thailand). E Paleotethys probably double main branches. Mae Sariang zone probably connects NW to Luxi ophiolitic melange zone between Baoshan and Tengchong blocks in W Yunnan)

Liu, B.P., Q.L. Feng & N.Q. Fang (1991)- Tectonic evolution of the Paleo-Tethys in Changning-Menglian Belt and adjacent Regions, Western Yunnan. J. China University of Geosciences 2, p. 18-28.

Liu, B.P., Q.L. Feng & N.Q. Fang, J. Jia & F. He (1993)- Tectonic evolution of paleo-Tethys poly-island-ocean in the Changning-Menglian and Lancangjiang belts, southwestern Yunnan, China. Earth Science, Journal of China University of Geoscience 18, 5, p. 529-539. *(in Chinese, with English Abstract)*
(Changning-Mengliang belt between Baoshan-Gengma and Simao-Lincang massifs is suture zone, representing closed branch of Devonian- M Triassic poly-island Paleotethys Ocean. Lincang Massif probably isolated Gondwana-affinity terrane that accreted to W margin of Simao massif in M Permian. May be connected to Nan-Uttaradit suture of N Thailand before Late Permian))

Liu, B.P., Q.L. Feng, N.Q. Fang, J. Jia & F. He, W. Yang & D. Liu (1997)- Tectono-paleogeographic framework and evolution of the Paleotethyan archipelagoes ocean in Changning-Menglian belt, Western Yunnan, China. In: Devonian to Triassic Tethys in Western Yunnan, China University of Geosciences Press, p. 1-12.

Liu, S., Tao Qian, Wangpeng Li, Guoxing Dou, and Peng Wu (2015)- Oblique closure of the northeastern Paleo-Tethys in central China. Tectonics 34, 10.1002/2014TC003784, p. 1-22.
(NE branch of Paleo-Tethys Ocean that separated N China and South China plates closed by oblique collision along two N-dipping suture zones in C China. Shangdan suture developed in Late Paleozoic; Mianlue suture to S in M-L Triassic (collisional sutures obscured by thrust faults in S Qinling-Dabieshan orogen))

Lohman, D.J., M. de Bruyn, T. Page, K. von Rintelen, R. Hall, P.K.L. Ng, H.T. Shih, G.R. Carvalho & T. von Rintelen (2011)- Biogeography of the Indo-Australian Archipelago. Annual Review Ecology Evolution Systematics 42, p. 205-226.
(online at: http://searg.rhul.ac.uk/pubs/lohmann_etal_2011%20Biogeography%20of%20Indo-Australian%20archipelago.pdf)
(Extraordinary species richness and endemism in Indo-Australian Archipelago. Present distribution patterns of species shaped largely by pre-Pleistocene dispersal and vicariance events, whereas more recent changes in connectivity of islands in Archipelago influenced partitioning of intraspecific variation)

Long, J.A. & E. Buffetaut (2001)- A biogeographic comparison of the dinosaurs and associated vertebrate faunas from the Mesozoic of Australia and Southeast Asia. In: I. Metcalfe et al. (eds.) Faunal and floral migrations and evolution in SE Asia-Australasia. Balkema, Lisse, p. 97-104.

(dinosaurs and associated vertebrate faunas known from Late Triassic- Cretaceous of Australia and mainland SE Asia. Most taxa are of Early Cretaceous age. No similarities between SE Asia and Gondwana, but clear affinities between SE Asia and northern hemisphere)

Luyendyk, B.P. (1974)- Gondwanaland dispersal and the early formation of the Indian Ocean. In: B.P. Luyendyk & T.A. Davies (eds.) Initial Reports Deep Sea Drilling Project (DSDP) 26, p. 945-952.
(online at: www.deepseadrilling.org/26/volume/dsdp26_37.pdf)
(Early paper on formation of Indian Ocean and dispersal of Gondwana pieces towards Asia. Shows Late Jurassic separation of Borneo and Sulawesi from NW Australian margin)

Lynner, C. & M. D. Long (2014)- Sub-slab anisotropy beneath the Sumatra and circum-Pacific subduction zones from source-side shear wave splitting observations. Geochem. Geophys. Geosystems 15, 6, p. 2262-2281.
(Source-side shear wave splitting measurements for C America, Alaska-Aleutians, Sumatra, Ryukyu and Izu-Bonin-Japan-Kurile subduction systems. Trench parallel fast splitting dominant beneath Izu-Bonin, Japan, S Kurile slabs and part of Sumatra system; fast directions paralleling motion of downgoing plate dominant in Ryukyu, C America, N Kurile, W Sumatra and Alaska-Aleutian regions. Older subducting lithosphere (>95 Ma) associated with trench parallel splitting, younger lithosphere with plate motion parallel fast splitting directions)

Marcoux, J. & A. Baud (1996)- Late Permian to Late Triassic Tethyan paleoenvironments. Three snapshots: Late Murgabian, Late Anisian, Late Norian. In: X. Nairn et al. (eds.) The Tethys Ocean, Plenum Press, New York, p. 153-190.
(Three paleogeographic reconstructions of Tethys Ocean, from Europe to Australia (similar to maps of Tethys Atlas Project by Dercourt et al., 1993))

Maruyama, S., J.G. Liou & T. Seno (1989)- Mesozoic and Cenozoic evolution of Asia. In: Z. Ben-Avraham (ed.) The evolution of the Pacific Ocean margins, Oxford University Press, Monogr. Geol. Geoph. 8, p. 75-99.

Maruyama, S., J.G. Liou & M. Terabayashi (1996)- Blueschists and eclogites of the world and their exhumation. Int. Geology Review 38, 6, p. 485-594.
(Includes brief descriptions of Indonesian (Java, SE Kalimantan, Sulawesi, Timor, N New Guinea) and SW Pacific (E PNG, New Caledonia, etc.) blueschist occurrences)

Maruyama, S., H. Masago, I. Katayama, Y. Iwase, M. Toriumi, S. Omori & K. Aoki (2010)- A new perspective on metamorphism and metamorphic belts. Gondwana Research 18, p. 106-137.
(Includes discussion of ongoing exhumation of continent collision-type metamorphic belt in Timor-Tanimbar region)

Maruyama, S., S. Omori, H. Senshu, K. Kawai & B.F. Windley (2011)- Pacific-type orogens: new concepts and variations in space and time from present to past. J. Geography (Chigaku Zasshi) 120, p. 115-223.
(online at: www.jstage.jst.go.jp/article/jgeography/120/1/115/_pdf)
(In Japanese with English summary. Overview of Pacific-type active margins, with examples from Indonesia. Show Miocene forearc spreading in Banda outer arc, creating ophiolites that now rest on metamorphic belts from Timor, through Leti-Moa-Sermata to Dai islands, etc.)

Maung, H. (1983)- A new reconstruction of Southeast Asia and Gondwanaland in relation to mantle plumes or hotspots. Proc. South East Asia Petroleum Expl. Soc. (SEAPEX) 6, p. 66-70.

Mayr, E. (1945)- Wallaceȏs Line in the light of recent zoogeographic studies. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies. Board for the Netherlands Indies, Surinam and Curacao, New York, p. 241-250.
(Wallace's zoogeographic line not boundary between Indo-Malayan and Australian regions, rather the edge of Sunda shelf area. Weber's Line separates islands in W with predominantly Indo-Malayan elements from islands in E with dominantly Australo-Papuan elements)

Mazur, S., C. Green, M.G. Stewart, J.M. Whittaker, S. Williams & R. Bouatmani (2012)- Displacement along the Red River Fault constrained by extension estimates and plate reconstructions. Tectonics 31, 5, TC5008, p. 1-22.
(New plate tectonic interpretations for Greater S China Sea area since 35 Ma, partly constrained by amounts of extension computed from gravity models. Best-fit plate model assumes 250 km of left-lateral displacement along Red River Fault (calculated at Vietnamese coast of Gulf of Tonkin) from 35- 20.5 Ma)

McCabe, R. (1984)- Implications of paleomagnetic data on the collision related bending of island arcs. Tectonics 3, 4, p. 409-428.
(Paleomagnetic studies from C Philippines, Sulawesi, Fiji-New Hebrides, etc., show differences in declination within same arc. Rotated segments of upper plate where buoyant feature on downgoing plate (seamount, continental fragment or island arc) locally deforms margin of upper plate. Stresses resulting from collision may result in (1) strike-slip faults causing sideward extrusion of portions of upper plate; (2) changes in subduction zone polarity; (3) strike-slip faults around margin of indenter; or (4) reorganization of entire plate margin)

McCabe, R. & J. Cole (1987)- Speculations on the Late Mesozoic and Cenozoic evolution of the South East Asian margin. In: M.K. Horn (ed.) Trans. 4th Circum-Pacific Energy and Mineral Resources Conference, Singapore 1986, p. 375-394.
(Sulu, Celebes and Banda Sea marginal basins all have E-W trending magnetic anomalies, progressively younging to North from Cretaceous to Paleogene, therefore believed to be parts of single marginal oceanic basin. (subsequent work suggests Banda Sea not Cretaceous but Neogene age: JTvG))

McCabe, R. & J. Cole (1989)- Speculations on the Late Mesozoic and Cenozoic evolution of the Southeast Asian margin. In: Z. Ben-Avraham (ed.) The evolution of the Pacific Ocean margins, Oxford Monographs Geol. Geophysics 8, Oxford University Press, p. 143-160.

McCabe, R., S. Harder, J.T. Cole & E. Lumadyo (1993)- The use of palaeomagnetic studies in understanding the complex Tertiary tectonic history of East and Southeast Asia. In: B.K. Tan et al. (eds.) 7th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA VII), Bangkok 1991, J. Southeast Asian Earth Sci. 8, p. 257-268.
(Paleomag data from Philippines, Indo-China, Japan. Many published paleomagnetic studies on Mesozoic-Paleozoic rocks show magnetizations that are same as that of overlying Cenozoic volcanics, suggesting possible resetting, and making older rocks results suspect)

McCabe, R., D. Merrill, J.T. Cole & E. Lumadyo (1996)- The use of palaeomagnetic studies in understanding the complex Tertiary tectonic history of East and Southeast Asia. In: G.P. & A.C. Salisbury (eds.) Trans. 5th Circum-Pacific Energy and Mineral Resources Conference, Honolulu 1990, Gulf Publishing, Houston, p. 369-383.
(Same paper as McCabe et al. 1993)

McElhinny, M.W., B.J.J. Embleton, H. Max & Z.K. Zhang (1981)- Fragmentation of Asia in the Permian. Nature 293, p. 212-216.
(Compilation of Permian paleomagnetic data. Asia is composite continent formed by accretion of crustal blocks. Malay Peninsula and Japan were situated near Equator in Permian and therefore separated from Asian continent. Permian of Sino-Korean and Yangtze blocks of China also near Equator)

McElhinny, M.W., N.S. Haile & A.R. Crawford (1974)- Paleomagnetic evidence shows Malay Peninsula was not a part of Gondwanaland. Nature 252, 5485, p. 641-645.
(Reconnaissance paleomagnetic survey on Malay Peninsula suggests it lay at 15° N in Late Paleozoic, so could not have been part of Gondwanaland)

McGowran, B., M. Archer, P. Bock, T.A. Darragh et al. (2000)- Australasian palaeobiogeography: the Palaeogene and Neogene record. In: A.J. Wright et al. (eds.) Palaeobiogeography of Australasian fauans and floras, Mem. Assoc. Australasian Palaeontologists (AAP) 23 23, p. 405-470.

McLoughlin, S. (2001)- The breakup history of Gondwana and its impact on pre-Cenozoic floristic provincialism. Australian J. Botany 49, 3, p. 271-300.
(From Carboniferous to Cretaceous S continents broadly similar floras but some species-level provincialism apparent at all times. Gondwanan floras radical turnovers near end Carboniferous, end Permian and end Triassic that appear unrelated to isolation or fragmentation of supercontinent. Throughout Late Paleozoic and Mesozoic high-latitude southern floras maintained different composition to paleoequatorial and boreal regions even though they remained in physical connection with Laurasia for much of this time)

McManus, J. & R.B. Tate (1978)- Fragmentation of the China Plate and the development of marginal seas of S.E. Asia. Proc. SEAPEX Offshore SE Asia Conf., Singapore 1978, 14p.
(Tectonics of SE Asia, particularly Sulu- Celebes Seas. Some marginal seas originated by intraplate spreading, others by border spreading)

Meert, J. (2003)- A synopsis of events related to the assembly of eastern Gondwana. Tectonophysics 362, p. 1-40.
(Assembly of E part of Gondwana supercontinent (incl. E Africa, Arabia, India, E Antarctica and Australia) resulting from complex series of orogenic events from ~750- 530 Ma. Rel. little on Australia, which in ~800-700 Ma restores to N Hemisphere)

Mei, S. & C.M. Henderson (2001)- Evolution of Permian conodont provincialism and its significance in global correlation and paleoclimate implication. Palaeogeogr. Palaeoclim. Palaeoecology 170, p. 237-260.
(Early Permian Gondwana Cool Water Province with Vjalovognathus in Canning, Carnarvon basins and W Timor. Permian conodont provincialism not distinct until Kungurian)

Mei, S. & C.M. Henderson (2002)- Comments on some Permian conodont faunas reported from Southeast Asia and adjacent areas and their global correlation. J. Asian Earth Sci. 20, 6, p. 599-608.
(Conodont faunas from SE Asia classified in new faunal provinces: Equatorial Warm Water (EWWP), peri-Gondwana Cool Water (GCWP) and N Cool Water (NCWP; N China). GCWP marked by Vjalovognathus, etc., EWWP by absence of Gondolelloides and Vjalovognathus in E-M Cisuralian, abundance of Sweetognathus and Pseudosweetognathus in Kungurian, etc. Mixed faunas between EWWP and GCWP include W Timor Artinskian, SE Pamirs Kungurian and Salt Range Guadalupian- Lopingian)

Mei, S., C.M. Henderson & B.R. Wardlaw (2002)- Evolution and distribution of the conodonts *Sweetognathus* and *Iranognathus* and related genera during the Permian, and their implications for climate change. Palaeogeogr. Palaeoclim. Palaeoecology 180, p. 57-91.
(On evolution of conodonts of E-M Permian Sweetognathus and Late Permian Iranognathus lineages)

Meister, C. (2007)- Les Phricodoceratidae Spath, 1938 (Mollusca, Cephalopoda): ontogenese, evolution et paleobiogeographie. Geodiversitas 29, 1, p. 87-117.
(p. 112-113: Lower Jurassic ammonites described from Roti by Krumbeck (1922; Pliensbachian Ibex zone) have N Tethys affinities, suggesting these are from exotic blocks now on S Tethys/ Australian margin?)

Metcalfe, I. (1983)- Southeast Asia. In: R.H. Wagner et al. (eds.) The Carboniferous of the world, 1, Int. Union Geol. Sci. Publ. 16, p. 213-243.
(Extensive review of Carboniferous in W and E Malay Peninsula, W and NE Thailand, Vietnam, Laos, N and E Sumatra, W Sarawak, etc. Sumatra Alas Fm of Late Visean age)

Metcalfe, I. (1984)- Stratigraphy, palaeontology and palaeogeography of the Carboniferous of Southeast Asia. Mem. Soc. Geologique France, N.S. 147, p. 107-118.
(Older continental part of SE Asia four tectonic blocks (Sibumasu, Manabor (Malaya- Natuna- W Borneo), Indochina, S China), with independent pre-Triassic histories. Carboniferous mainly shallow marine with subordinate epicontinental and continental deposits. Carboniferous of Sibumasu continental margin deposits with glacial-marine diamictites. Manabor block shallow marine clastics with reefal limestones and abundant

volcanics interpreted as possible island arc. C part of Indochina Block emergent in Carboniferous and bordered by non-marine. Carboniferous faunas of SE Asia mainly of Eurasian aspect)

Metcalfe, I. (1986)- Late Palaeozoic palaeogeography of Southeast Asia: some stratigraphical, palaeontological and palaeomagnetic constraints. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 1, Bull. Geol. Soc. Malaysia 19, p. 153-164.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986012.pdf)
(First of many Metcalfe papers on SE Asian tectonic blocks, their Gondwanan origins and histories of rifting, drift and collision with Asia. SE Asia 4 tectonic blocks, SIBUMASU, MANABOR, Indochina and South China. Indochina and S China rifted off Gondwana in Late Devonian- E Carboniferous and sutured to each other by M Carboniferous. SIBUMASU separated from Australian Gondwana in late Lower Permian. MANABOR accreted to Indochina/S China by Late Triassic, possibly earlier)

Metcalfe, I. (1988)- Origin and assembly of South-East Asian continental terranes. In: M.G. Audley-Charles & A. Hallam (eds.) Gondwana and Tethys, Geol. Soc., London, Spec. Publ. 37, p. 101-118.
(Documentation of stratigraphic successions and paleobiogeographic affinities of Sibumasu, East Malaya, Indochina and SW Borneo blocks)

Metcalfe, I. (1989)- Carboniferous and Permian palaeogeography of Southeast Asia. Comptes Rendus 9th Congres Intern. Stratigraphie Geologie Carbonifere, Beijing 1987, 4, p. 245-264.

Metcalfe, I. (1990)- Allochthonous terrane processes in Southeast Asia. In: J. Dewey et al. (eds.) Allochthonous Terranes, Philos. Trans. Royal Soc. London, Ser. A, 331, 1620, p. 625-640.
(online at: http://journals.royalsociety.org/content/d673155257474040/fulltext.pdf)

Metcalfe, I. (1991)- Late Palaeozoic and Mesozoic palaeogeography of Southeast Asia. Palaeogeogr. Palaeoclim. Palaeoecology 87, p. 211-221.

Metcalfe, I. (1992)- Ordovician to Permian evolution of Southeast Asian terranes: NW Australian Gondwana connections. In: B.D. Webby & J.R. Laurie (eds.) Global perspectives on Ordovician geology, Proc. 6th Int. Symposium on the Ordovician System, A. A. Balkema, Rotterdam, p. 293-305.
(Continental 'core' of SE Asia four main terranes: South China. Sibumasu, Indochina and East Malaya. Ordovician faunas of S China and Sibumasu strong affinities with N and NW Australia and Tasmania and include forms endemic to Australia and Gondwana. Affinities of E Palaeozoic faunas of Indochina and E Malaya not yetknown. N China placed near N Australia, Sibumasu adjacent to NW Australia and S China, Indochina, Tarim, Tsaidam, Lhasa and Changtang blocks formed part of North India-Iran margin of Gondwana.)

Metcalfe, I. (1993)- Palaeomagnetic research in Southeast Asia: progress, problem and prospects. Exploration Geophysics 24, 2, p. 277-282.
(Stratigraphical, sedimentological, paleobiogeographic and paleomagnetic data suggest that probably all SE Asian continental terranes derived from Gondwana. Terranes assembled between Late Paleozoic and Cenozoic. Progressive CCW rotation of Borneo- Malay Peninsula region during Late Cretaceous- Cenozoic. Most Paleozoic data from mainland Asia probably affected by Late Carboniferous and Cretaceous resets. Paleomagnetic data vital for constraining movements of crustal blocks)

Metcalfe, I. (1993)- Southeast Asian terranes: Gondwanaland origins and evolution. In: R.H. Findlay et al. (eds.) Gondwana Eight- Assembly, evolution and dispersal, Proc. 8th Gondwana Symposium, Hobart, 1991, Balkema, Rotterdam, p. 181-200.

Metcalfe, I. (1994)- Late Palaeozoic and Mesozoic palaeogeography of Eastern Pangea and Tethys. In: A.F. Embry et al. (eds.) Pangea: global environments and resources, Canadian Soc. Petrol. Geol. Mem. 17, p. 97-111.

(Evolution of E Pangea and Tethys in Late Paleozoic- Mesozoic involved rifting of continental slivers/fragments from NE Gondwanaland, N-wards drift and amalgamation/accretion to form proto East Asia. Three continental slivers rifted from NE Gondwanaland in Silurian- E Devonian (N China, S China, Indochina/ E Malaya, Qamdo-Simao and Tarim terranes), E-M Permian (Cimmerian continent, incl. Sibumasu, Lhasa and Qiangtang terranes) and Late Jurassic (W Burma terrane, Woyla terranes). N-ward drift of terranes effected by opening and closing of three successive Tethys oceans, Paleo-Tethys, Meso-Tethys and Ceno-Tethys)

Metcalfe, I. (1994)- Gondwanaland origin, dispersion, and accretion of East and Southeast Asian continental terranes. J. South American Earth Sci. 7, 3-4, p. 333-347.
(Assembly of Gondwana-derived terranes in SE Asia)

Metcalfe, I. (1996)- Pre-Cretaceous evolution of SE Asian terranes. In: R. Hall & J. Blundell (eds.) Tectonic evolution of Southeast Asia, Geol. Soc., London, Spec. Publ. 106, p. 97-122.
(Pre-Cretaceous continental terranes of E and SE Asia all derived from Gondwanaland. Continental slivers rifted from N margin of Gondwanaland in Devonian (N China, S China, Indochina/East Malaya/Simao, Qaidam and Tarim), E-M Permian (Cimmerian continent incl. Sibumasu and Qiangtang); and Late Triassic-Late Jurassic (Lhasa, W Burma and Woyla). N drift of terranes accompanied by opening and closing of Paleo-Tethys, Meso-Tethys and Ceno-Tethys. Assembly of Gondwanaland-derived terranes began with amalgamation of S China and Indochina/ E Malaya in Late Devonian/E Carboniferous to form 'Cathaysialand'. Suturing of Sibumasu and Qiangtang to Cathaysia in Late Permian-Triassic. S and N China amalgamated, then accreted to Laurasia by Late Triassic-E Jurassic. Kurosegawa Terrane of Japan possibly from Australian Gondwana, accreted to Japanese Eurasia in Late Jurassic. Lhasa, W Burma and Woyla terranes accretion to SE Asia in Cretaceous. SW Borneo and Semitau terranes derived from S China/ Indochina by Cretaceous opening of marginal basin, subsequently destroyed by S-ward subduction during rifting of Reed Bank-Dangerous Grounds terrane from S China when S China Sea opened)

Metcalfe, I. (1996)- Gondwanaland dispersion, Asian accretion and evolution of the eastern Tethys. Australian J. Earth Sci. 43, p. 605-623.

Metcalfe, I. (1997)-The Palaeo-Tethys and Palaeozoic- Mesozoic tectonic evolution of Southeast Asia. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 1, p. 260-272.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Main Paleotethys Ocean basin, which separates Late Paleozoic Gondwanaland terranes from Late Paleozoic Cathaysian terrane, represented by Triassic suture zones Lancangjian and Changning-Menglian (SW China), Nan-Uttaradit and Sra Kaeo (Thailand) and Bentong-Raub (Peninsular Malaysia). Subsidiary branches of Paleotethys represented by Ailaoshan suture in Yunnan, Song Ma suture in Vietnam (E Carboniferous) and other possible suture segments in N Thailand and S China. Radiolarian assemblages from deep marine cherts show Paleotethys opened in M-L Devonian and closed in Late Triassic)

Metcalfe, I. (1998)- Palaeozoic and Mesozoic geological evolution of the SE Asian region: multidisciplinary constraints and implications for biogeography. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia. Backhuys Publ., Leiden, p. 25-41.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/01/Metcalfe.pdf)
(On E and SE Asia 'jigsaw puzzle' of continental terranes))

Metcalfe, I. (1999)- The ancient Tethys Oceans of Asia: how many? how old? how deep? how wide? UNEAC Asia papers, University of New England, Armidale, 1, p. 1-9.
(online at: www.une.edu.au/asiacentre/PDF/Metcalfe.pdf)
(Tethys in E Asia three successive ocean basins: Paleo-Tethys (late E Devonian- M Triassic), Meso-Tethys (late E Permian- Late Cretaceous) and Ceno-Tethys (Late Triassic (W)/Late Jurassic (E)- Cenozoic). Ocean basins water depths comparable to modern ocean basins and all three had widths of 2000- 3000 km in E parts at maximum development)

Metcalfe, I. (1999)- The ancient Tethys Oceans of Asia: how many? how old? how deep? how wide? In: Ratanasthein, B. & S.L. Rieb (eds.) Proc. Int. Symposium on Shallow Tethys (ST) 5, Chiang Mai, Thailand, 1999, p. 1-15.
(Same paper as above)

Metcalfe, I. (1999)- Gondwana dispersion and Asian accretion: an overview. In: I. Metcalfe (ed.) Gondwana dispersion and Asian accretion, IGCP 321 Final Results Volume, A.A. Balkema, Rotterdam, p. 9-28.

Metcalfe, I. (1999)- The Palaeo-Tethys in East Asia. In: G.H. Teh (ed.) Proc. 9th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA â98), Kuala Lumpur 1998, Bull. Geol. Soc. Malaysia 43, p. 131-143.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1999013.pdf)
(Paleo-Tethys opened in Devonian when N China, S China, Tarim, Indochina separated from N Gondwanaland and closed in Permian- Triassic when Sibumasu/-Qiangtang terrane amalgamated with Indochina/ S China. Main suture zone in E Asia represented by Lancangjiang and Changning-Menglian zones of SW China, Nan-Uttaradit and Sra Kaeo zones of Thailand and Bentong-Raub suture zone of Peninsular Malaysia)

Metcalfe, I. (2000)- The nature and ages of Palaeo-Tethyan suture zones in East Asia. In: Papers 2nd Symp. IGCP Project 411, Geodynamic processes of Gondwanaland-derived terranes in Eastern Asia, Geosciences J.(Korea) 4, Spec. Ed., p. 33-38.
(All East Asian terranes derived from Gondwanaland. Rifted and separated as three continental strips in Devonian, late early Permian and Late Triassic- Late Jurassic, opening Paleo-Tethys, Meso-Tethys and Ceno-Tethys oceans. East Asia formed by assembling/ closing of these oceans)

Metcalfe, I. (2000)- The Bentong-Raub suture zone. J. Asian Earth Sci. 18, 6, p. 691-712.
(Bentong-Raub Suture Zone of Malay Peninsula is closed segment of Devonian- M Triassic Paleo-Tethys ocean and boundary between Sibumasu and Indochina terranes. Suture zone result of Permian N-ward subduction of Paleo-Tethys under Indochina and Triassic collision of Sibumasu terrane. Sibumasu separated from Gondwana in late Sakmarian (E Permian), then drifted N in Permian-Triassic, with E Malaya I-type volcano-plutonic arc on Indochina margin. Main structural discontinuity in Peninsular Malaysia between Paleozoic and Triassic. Orogenic deformation started in U Permian-Lower Triassic. E-M Triassic, A-Type subduction and crustal thickening generated Late Triassic- E Jurassic Main Range syn- to post-orogenic granites. Foredeep basin developed on margin of Sibumasu in front of accretionary complex with Semanggol Fm rocks. Suture zone covered by latest Triassic- Cretaceous red bed overlap sequence)

Metcalfe, I. (2001)- The Bentong-Raub suture zone, Permo-Triassic orogenesis and amalgamation of the Sibumasu and Indochina terranes. Gondwana Research 4, 4, p. 701-702.
(Abbreviated version of above paper)

Metcalfe, I. (2001)- Warm Tethys and cold Gondwana: East and SE Asia in Greater Gondwana during the Phanerozoic. In: R.H. Weiss (ed.) Contributions to Geology and Palaeontology of Gondwana- in honour of Helmut Wopfner, Kolner Forum fur Geologie und Palaeontologie 22, Koln, p. 333-348.

Metcalfe, I. (2002)- Permian tectonic framework and palaeogeography of SE Asia. J. Asian Earth Sci. 20, 6, p. 551-566.
(On Gondwanan versus S China/Indochina-derived continental terranes in SE Asia. 'Cathaysian' S China-Indochina and Simao terranes at equatorial paleolatitude in Permian, but derived from Gondwana in Devonian. Sibumasu attached to NW Australia Gondwana until Sakmarian, then evolved through Permian intermediate stage to Cathaysian, reflecting separation and N ward drift. W Birma and smaller terranes (Paternoster, W Sulawesi, Mangkalihat) split off Gondwana in Late Triassic- Jurassic. SW Borneo, Luconia, Reed Bank, Palawan derived from S China/ Indochina in Cretaceous. Various terranes in E Indonesia derived from New Guinea in Cenozoic)

Metcalfe, I. (2002)- Tectonic history of the SE Asian-Australian region. In: P. Kershaw et al. (eds.) Bridging Wallaceôs Line: the environmental and cultural history of the SE Asian- Australian region. Advances in Geoecology 34, p. 29-48.

Metcalfe, I. (2005)- Asia: South-East. In: R.C. Selley et al. (eds.) Encyclopedia of Geology 1, Elsevier, Oxford, p. 169-198.
(Elegant review of plate tectonic evolution of SE Asia since Early Paleozoic and distributions of mineral resources)

Metcalfe, I. (2008)- Gondwana dispersion & Asian accretion: an update. In: Proc. Int. Symp. Geoscience Resources and Environments of Asian Terranes (GREAT 2008), 4th IGCP 516 and 5th APSEG, Bangkok, p. 23-25.
(online at: www.geo.sc.chula.ac.th/Geology/Thai/News/Technique/GREAT_2008/PDF/003.pdf)
(Re-evaluations suggest W Sumatra and W Burma blocks separated from Gondwana in Devonian, along with Indochina and E Malaya and together with S China formed 'Cathaysialand' in Permian. 'Argoland', which separated from NW Australia in Jurassic previously interpreted to be W Burma but may be SW Borneo)

Metcalfe, I. (2009)- Late Palaeozoic and Mesozoic tectonic and palaeogeographic evolution of SE Asia. In: E. Buffetaut, G. Cuny et al. (eds.) Late Palaeozoic and Mesozoic ecosystems in SE Asia. Geol. Soc. London, Spec. Publ. 315, p. 7-23.
(online at: https://imetcal2.une.edu.au/web-data/PDF%20Files/Metcalfe%202009%20Geol%20Soc.pdf)
(SE Asia collage of continental terranes derived from India-Australian margin of E Gondwana. Late Paleozoic-Mesozoic rifting and separation of three elongate continental slivers from E Gondwana and opening and closure of Paleo-Tethys, Meso-Tethys and Ceno-Tethys ocean basins. W Sumatra, W Burma, Indochina and East Malaya blocks separated from Gondwana in Devonian and with S China formed 'Cathaysialand' in Permian. They were translated W to positions outboard of Sibumasu Terrane by strike-slip tectonics in Late Permian-E Triassic at convergence between Meso-Tethys and Palaeo-Pacific plates. SW Borneo, previously considered of 'Cathaysian' origin, is possibly 'Argoland' that separated from NW Australia in Jurassic)

Metcalfe, I. (2009)- Comment on ñAn alternative plate tectonic model for the Palaeozoic-Early Mesozoic Palaeotethyan evolution of Southeast Asia (Northern Thailand-Burma)ò by O.M. Ferrari et al. (2008). Tectonophysics 471, p. 329-332.
(Critique of Ferrari et al. redefining 'Shan-Thai' terrane in Thailand as Cathaysian, Indochina-derived terrane instead of traditional view of Gondwanan continental block, introducing unnecessary confusion. Mai Yuam Fault, identified as Paleo-Tethys suture, is Cenozoic fault. Paleo-Tethys suture zone represented by Inthanon Suture zone in Thailand, equivalent to previously recognized Inthanon zone. Concept of derivation of 'Orang Laut' terranes from S China- Indochina by back-arc spreading is innovative. Little evidence to support proposed S-wards subduction of Paleo-Tethys beneath E Gondwana in Permian)

Metcalfe, I. (2010)- Gondwana dispersion and Asian accretion: tectonic and palaeogeographic evolution of eastern Tethys. In: 6th Symp. Int. Geol. Correl. Program Project 516, Geological anatomy of East and South Asia, Kuala Lumpur 2010, p. 13-15.
(online at: http://geology.um.edu.my/gsmpublic/IGCP516/IGCP516_2010_Proceedings.pdf)
(Brief version of Metcalfe 2011, etc.))

Metcalfe, I. (2011)- Tectonic framework and Phanerozoic evolution of Sundaland. Gondwana Research 19, p. 3-21.
(online at: https://imetcal2.une.edu.au/web-data/PDF%20Files/Metcalfe%202011%20Gond%20Res%20Sundaland.pdf)
(Sundaland collage of continental blocks derived from E Gondwana and assembled by closure of multiple Tethyan and back-arc ocean basins. Core of Sundaland comprises Sibumasu block in W and Indochina-E Malaya block in E, with island arc terrane, which formed on Indochina- E Malaya margin, in-between. Paleo-Tethys represented by Changning-Menglian, Chiang Mai/Inthanon and Bentong-Raub suture zones. W Sumatra and possibly W Burma blocks separated from Gondwana, with Indochina and E Malaya in Devonian and

accreted to Sundaland core in Triassic. W Burma now considered Cathaysian, similar to W Sumatra, from which it separated by Andaman Sea opening. SW Borneo and E Java-W Sulawesi tentatively identified as 'Banda Block' and 'Argoland', which separated from NW Australia in Jurassic and accreted to SE Sundaland in Cretaceous (puzzling how these rifted off NW Australia at same time, switch relative E-W positions along way, then both accreted to Sundaland margin at similar time but with Meratus suture separating them?; JTvG))

Metcalfe, I. (2011)- Palaeozoic-Mesozoic history of SE Asia. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geol. Soc., London, Spec. Publ. 355, p. 7-35.
(online at: https://www.academia.edu/13303900/Palaeozoic_Mesozoic_history_of_SE_Asia)
(One of later versions of Metcalfe SE Asia Cambrian- Eocene reconstructions of Gondwana-derived blocks and Tethyan oceans. Recent modification is identification of SW Borneo and/or E Java- W Sulawesi as missing 'Argoland' that separated from NW Australia in Jurassic and accreted to SE Sundaland in Cretaceous)

Metcalfe, I. (2013)- Gondwana dispersion and Asian accretion: tectonic and palaeogeographic evolution of eastern Tethys. J. Asian Earth Sci. 66, p. 1-33.
(online at: https://s3.amazonaws.com/academia.edu.documents/36381227/Metcalfe_2013_)
(Review paper on SE Asian plate tectonics. SW Borneo and E Java- W. Sulawesi now identified as missing 'Banda' and 'Argoland' blocks, separated from NW Australia in Late Triassic- Late Jurassic by opening of Ceno-Tethys and accreted to SE Sundaland by subduction of Meso-Tethys in Cretaceous)

Metcalfe, I. (2017)- Tectonic evolution of Sundaland. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 27-60.
(online at: www.gsm.org.my/products/702001-101709-PDF.pdf)
(Latest in series of Metcalfe review papers on SE Asian plate tectonics. By Late Triassic principal continental core blocks of Sundaland (Sibumasu, Sukhothai Arc, Simao, Indochina) had amalgamated and collided with S and N China to form proto-E and SE Asia. Paleo-Tethys represented by Changning-Menglian, Chiang Mai-Chiang Rai, Chanthaburi and Bentong-Raub Suture Zones that form boundary between Sibumasu and Sukhothai Arc. Sukhothai Arc formed on margin of Indochina in Carboniferous, then separated by back-arc spreading in Permian. Jinghong, Nan-Uttaradit and Sra Kaeo Sutures represent this closed back-arc basin. Cathaysian W Sumatra Block with its continental margin arc may well be displaced segment of Sukhothai Arc system, translated outboard of Sibumasu by strike-slip tectonics in Triassic. W Burma Block was already attached to Sundaland before Late Triassic and is likely disrupted part of Sibumasu. Nature of any hidden continental core of SW Borneo remains enigmatic. Etc.)

Metcalfe, I., C. Jen, J. Chavet & S. Hade (eds.) (1999)- Gondwana dispersion and Asian accretion. IGCP 321 Final Results Volume, A.A. Balkema, Rotterdam, p. 1-361.
(Final results of IGCP Project 321 'Gondwana dispersion and Asian accretion'. Collection of 19 papers on tectonics of SE Asia)

Metcalfe, I., J.M.B. Smith, M. Morwood & I. Davidson (eds.) (2001)- Faunal and floral migrations and evolution in SE Asia- Australasia. A.A. Balkema, Lisse, p. 1-416.
(Collection of 31 papers on biogeography and paleobiogeography of SE Asia- Australia, presented at Armidale 1999 conference)

Metcalfe, I., F.C.P. Spiller, B. Liu, H. Wu & K. Sashida (1999)- The Paleo-Tethys in Mainland East and Southeast Asia: contributions from radiolarians studies. In: I. Metcalfe (ed.) Gondwana dispersion and Asian accretion, Final Results IGCP Project 321. Balkema, Rotterdam, p. 259-281.
(Radiolarian biostratigraphy in Thailand, S China, Malaysia, etc., constrains ages of Paleotethys Ocean opening (Devonian) and closing (Triassic))

Metivier, F., Y. Gaudemer, P. Tapponnier & M. Klein (1999)- Mass accumulation rates in Asia during the Cenozoic. Geophysical J. Int. 137, p. 280-318.

Meyerhoff, A.A. (1996)- Surge-tectonic evolution of southeastern Asia: a geohydrodynamics approach. J. Southeast Asian Earth Sci. 12, 3-4, p. 145-247.
(Unorthodox, non-plate tectonic model for SE Asia)

Meyerhoff, A.A., A.J. Boucot, D. Meyerhoff Hull & J.M. Dickins (1996)- Phanerozoic faunal and floral realms of the Earth: the intercalary relations of the Malvinokaffric and Gondwana realms with the Tethyan faunal realm. Geol. Soc. America (GSA) Mem. 189, p. 1-69.
(Review of global paleobiogeographic realms through time from 'anti-plate tectonics' perspective)

Michaux, B. (1981)- Distributional patterns and tectonic development in Indonesia: Wallace reinterpreted. Australian Syst. Botany 4, 1, p. 25-36.

Michaux, B. (1994)- Land movements and animal distributions in east Wallacea (eastern Indonesia, Papua New Guinea and Melanesia). Palaeogeogr. Palaeoclim. Palaeoecology 112, p. 323-343.
(Present-day animal distribution patterns linked to plate tectonics)

Michaux, B. (1995)- Distributional patterns in west Wallacea and their relationship to regional tectonic structure. Sarawak Mus. J., p. 163-179.

Michaux, B. (2010)- Biogeology of Wallacea: geotectonic models, areas of endemism, and natural biogeographical units. Biol. J. Linnean Soc. 101, 1, p. 193-212.
(Review of models of geological development of Indonesia and Philippines. Areas of present-day endemism within Wallacea identified. Tanimbar Islands biologically part of S Maluku. Timor (plus Savu, Roti, Wetar, Damar, Babar) and W Lesser Sunda islands form separate areas of endemism. Wallacea formed from complex of predominantly Australasian exotic fragments linked by geological processes within complex collision zone)

Min, M., K.L. Khin, Q. Feng, C. Chonglakmani, D. Meischner, R. Ingavat-Helmcke & D. Helmcke (2001)- Tracing disrupted outer margin of Paleoeurasian continent through Union of Myanmar. J. China University of Geosciences 12, 3, p. 201-206.
(Discussion of difficulty of carrying Paleotethys suture between Gondwanan 'Sibumasu' terranes and Paleo-Eurasia continent through Myanmar and into Yunnan, S China. Main point of contention is position of Boashan Block, which has both Gondwanan and Tethyan characteristics in Permian. Margin farther W than usually assumed)

Mishra, H.K. (1996)- Comparative petrological analysis between the Permian coals of India and Western Australia: paleoenvironments and thermal history. Palaeogeogr. Palaeoclim. Palaeoecology 125, p. 199-216.

Mitchell, A.H.G. (1977)- Tectonic settings for emplacement of Southeast Asian tin granites. Bull. Geol. Soc. Malaysia 9, p. 123-140.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1977026.pdf)
(Most tin-bearing granitic rocks in SE Asia in one of three main belts: (1) Late Carboniferous- E Triassic East Belt (tin-bearing, emplaced in continental crust of E Malaya- E Central Thailand above E-dipping Benioff zone); (2) Late Triassic Central Belt ('Indosinian orogeny' syn-collisional granites, emplaced during collision of 'Sibumasu' (W Malaya, etc.); and (3) Western belt with widespread Late Cretaceous-E Eocene plutons (emplaced in W zone above E-dipping Benioff zone))

Mitchell, A.H.G. (1979)- Rift, subduction and collision-related tin belts. Bull. Geol. Soc. Malaysia 11, p. 81-102.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1979003.pdf)
(General discussion of tin belts in different tectonic settings, incl. SE Asian province)

Mitchell, A.H.G. (1981)- Phanerozoic plate boundaries in mainland SE Asia, the Himalayas and Tibet. J. Geol. Soc., London, 138, p. 109-122.

(Recognition of Phanerozoic subduction systems and two continental fragments of Gondwanaland through mainland SE Asia. Cambrian subduction system and 5 Mesozoic-early Cenozoic collision belts identified. Indochina, E Thailand and Cl Tibet accreted to China in E Triassic; western SE Asia and S Tibet separated from Gondwanaland in Permian or E Triassic and collided with Asia in Late Triassic. W Burma island arc system collided with Asia in Jurassic. U Triassic flysch and schist in E Indoburman Ranges accreted to W Burma in Jurassic- E Cretaceous)

Mitchell, A.H.G. (1985)- Collision-related fore-arc and back-arc evolution of the northern Sunda Arc. Tectonophysics 116, p. 323-334.
(In fore-arc area of N Sunda Arc (W Burma-Andaman-Nicobar- W Thailand) emplacement of serpentinite melange diapirs and deposition of olistostromes were caused by Campanian collision with continental fragment since underthrust E-wards beneath arc. Age and position of E-directed thrusts and associated tin granites in continental back-arc area implies thrusting and generation of granites genetically related to collision)

Mitchell, A.H.G. (1986)- Mesozoic and Cenozoic regional tectonics and metallogenesis in mainland SE Asia. In: G.H. Teh & S. Paramananthan (eds.) Proc. GEOSEA V Conf., Kuala Lumpur 1984, 2, Bull. Geol. Soc. Malaysia 20, p. 221-239.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1986b12.pdf)
(Main Mesozoic tectonic event in mainland SE Asia was Late Triassic Indosinian orogeny. Deformation and uplift in Malaysia Main Range and N Thailand, emplacement of syn- to late-tectonic two-mica granites of Central Tin Belt, and imbricate thrusting in Bangka Island best be explained by E Triassic collision of Shan-Thai block foreland with Indochina block to E. Continental fragment, exposed in Indoburman Ranges, collided with Burma in latest Jurassic, etc.)

Mizutani, S. & S. Kojima (1992)- Mesozoic radiolarian biostratigraphy of Japan and collage tectonics along the eastern continental margin of Asia. Palaeogeogr. Palaeoclim. Palaeoecology 96, p. 3-22.
(On belt of Jurassic accretionary complex along E Asian margin from Japan to S, composed of deformed sediments with U Permian limestone, Triassic bedded cherts and Lower Jurassic siliceous shales and younger clastic rocks)

Mizutani, S., J. Shao & Q. Zhang (1990)- The Nadanhada Terrane in relation to Mesozoic tectonics on continental margins of East Asia. Acta Geologica Sinica (English Ed.) 3, 1, p. 15-29.
(Nadanhada Jurassic disrupted terrane in NE China mainly composed of Permo- Carboniferous limestone and greenstone, Triassic bedded chert and M Jurassic siliceous shale enclosed in Late Jurassic- E Cretaceous clastics. Identical to Mino terrane of Japan, and representing parts of long E Asian Late Jurassic- Cretaceous accretionary belt along E Asia continental margin after Triassic amalgamation of Chinese continent. Also included Ryukyu arc, Palawan Blocks of Philippines and probably Borneo (Danau Fm))

Molnar, P. & P. Tapponnier (1975)- Cenozoic tectonics of Asia: effects of a continental collision. Science 189 (4201), p. 419-426.
(Classic paper linking major strike slip faults in Asia to India-Asia collision)

Monnier, C. (1996)- Mechanismes dôaccretion des domaines oceaniques arriere-arc et geodynamique de lôAsie du Sud-Est. These Doct. Universite de Bretagne Occidentale, p. 1-605.
('Accretion mechanisms of oceanic fore-arc domains and geodynamics of SE Asia')

Morley, C.K. (2001)- Combined escape tectonics and subduction rollback-back arc extension: a model for the evolution of Tertiary rift basins in Thailand, Malaysia and Laos. J. Geol. Soc., London, 158, 3, p. 461-474.
(Tertiary rift basins of Thailand and adjacent countries show considerable variability in timing of rifting and inversion episodes. Rift basins developed on blocks that were extruded SE-ward, possibly tied to Himalayan extrusion tectonics. In Thailand major sinistral strike-slip motion ceased at ~30 Ma, prior to formation of most rift basins. Alternative mechanism to open rift basins is subduction rollback of Indian plate W of Thailand)

Morley, C.K. (2002)- A tectonic model for the Tertiary evolution of strike-slip faults and rift basins in SE Asia. Tectonophysics 347, p. 189-215.
(Two types of SE Asia Tertiary evolution models: (1) escape tectonics with no proto-S China Sea, (2) subduction of proto-S China Sea oceanic crust beneath Borneo. Proposed tectonic model with key points: (1) Ailao Shan- Red River shear zone mainly active in Eocene-Oligocene tied to extension in S China Sea, less active in Miocene; (2) three regions of metamorphic core complex development affected Indochina from Oligocene-Miocene; (3) Subduction of proto-S China Sea in Eocene- E Miocene necessary to explain evolution of NW Borneo; (4) Eocene-Oligocene collision of NE India with Burma activated extrusion tectonics in mainland SE Asia and right lateral motion along Sumatran subduction zone)

Morley, C.K. (2004)- Nested strike-slip duplexes, and other evidence for Late Cretaceous-Palaeogene transpressional tectonics before and during India-Eurasia collision in Thailand, Myanmar and Malaysia. J. Geol. Soc. London 161, p. 799-812.
(Late Cretaceous S-type granites from Malaysia-Thailand to Myanmar long used to infer episode of crustal thickening, supported by late Cretaceous-Eocene ophiolites in Myanmar, but no evidence for associated fold-thrust belt. Fission-track studies of Thailand indicate modest regional uplift from ~80-40 Ma. Left lateral motion on major NW-SE-trending strike-slip fault zones (Mae Ping and Three Pagodas faults) in Myanmar and Thailand attributed to Himalayan-Tibetan escape tectonics, but fault zones are network of branching faults with important N-S trends as well as NW-SE trends. This diffuse 1000 km long/up to 250 km wide, branching network of strike-slip faults may represent Late Cretaceous- Paleogene transpressional belt. Himalayan escape tectonics represent later deformation)

Morley, C.K. (2007)- Variations in Late Cenozoic- Recent strike-slip and oblique-extensional geometries, within Indochina: the influence of pre-existing fabrics. J. Structural Geol. 29, p. 36-58.
(From Yunnan to N Thailand, Late Cenozoic-Recent faults strike predominantly NNE-SSW, N-S to NNE–SSW and NE-SW to ENE-WSW. Associated sedimentary basins are aligned NE-SW to N-S. Fault patterns commonly interpreted as strike-slip dominated deformation, but N Thailand interpreted to have evolved mainly by oblique extension. Multiple episodes of basin inversion in N Thailand during Miocene require changes in stress pattern)

Morley, C.K. (2009)- Evolution from an oblique subduction back-arc mobile belt to a highly oblique collisional margin: the Cenozoic tectonic development of Thailand and eastern Myanmar. In: P.A. Cawood & A. Kroner (eds.) Earth accretionary systems in space and time, Geol. Soc., London, Spec. Publ. 318, p. 373-403.
(N to NE subduction beneath SE Asia during Mesozoic-Cenozoic resulted in development of hot, thickened crust in Thailand-Myanmar region in back-arc mobile belt setting. Setting changed in Eocene-Recent to highly oblique collision when India coupled with W Burma block)

Morley, C.K. (2012)- Late Cretaceous- Early Palaeogene tectonic development of SE Asia. Earth-Science Reviews 115, p. 37-75.
(Late Cretaceous-E Paleogene history of continental core of SE Asia (Sundaland), prior to India- Asia collision. In Myanmar and Sumatra subduction s interrupted in Aptian-Albian by phase of arc accretion (Woyla and Mawgyi arcs) and in Java, E Borneo and W Sulawesi by collision of continental fragments rifted from N Australia. Subsequent resumption of subduction in Myanmar-Thailand sector explains: (1) early creation of oceanic crust in Andaman Sea in supra-subduction zone setting at ~95 Ma;(2) belt of granite plutons of Late Cretaceous- E Paleogene age in W Thailand and C Myanmar; (3) amphibolite grade metamorphism at 70-80 Ma in W and C Thailand; and (4) accretionary prism development in W Belt of Myanmar, until glancing collision with NE corner of Greater India promoted ophiolite obduction and deformation in E Paleogene)

Morley, C.K. (2013)- Discussion of tectonic models for Cenozoic strike-slip fault-affected continental margins of mainland SE Asia. J. Asian Earth Sci. 76, p. 137-151.
(On relationship between Cenozoic strike-slip faults of mainland SE Asia and adjacent sedimentary basins (Gulf of Thailand, Gulf of Martaban/Andaman Sea, Gulf of Tonkin. Most major onshore SE Asia strike-slip faults probably do not extend far offshore)

Morley, C.K., R. King, R. Hillis, M. Tingay & G. Backe (2011)- Deepwater fold and thrust belt classification, tectonics, structure and hydrocarbon prospectivity: a review. Earth-Science Reviews 104, p. 41-91.
(Overview of deepwater fold-thrust systems. Two types: Type 1 mainly on passive margins, driven by sediment loading or local uplift, typically with high-quality continent-derived quartz sst reservoirs; Type 2 on active margins, in areas of continental convergence. Examples include NW Borneo, W Sulawesi- Makassar Straits, Banda Arc, Seram)

Morley, R.J. (2000)- Origin and evolution of tropical rain forests. John Wiley & Sons, New York, p. 1-362.
(SE Asia chapter describes Cenozoic vegetation response to plate tectonic evolution, as reflected in Indonesia palynology records. Middle Eocene arrival of palynomorphs known from older deposits in India is consequence of India-Asia collision. In M Eocene SW Sulawesi has Laurasian flora, and was attached to E Kalimantan. Makassar Straits became floral-faunal migration barrier in Late Eocene. First Australian- New Guinea floral elements (Casuarina, etc.) start appearing in W Java Sea around 22-21 Ma)

Moyne, S. & P. Neige (2007)- The space-time relationship of taxonomic diversity and morphological disparity in the Middle Jurassic ammonite radiation. Palaeogeogr. Palaeoclim. Palaeoecology 248, p. 82-95.
(Australia biogeographic realm comprises Western Australia, New Zealand, New Guinea and Sula Islands. Not much specific data/ interpretation)

Moyne, S., P. Neige, D. Marchandet & J. Thierry (2004)- Repartition mondiale des faunes dĉammonites au Jurassique moyen (Aalenien superieur a Bathonien moyen): relations entre biodiversite et paleogeographie. Bull. Soc. Geologique France 175, 5, p. 513-523.
('Global distribution of ammonite faunas in the Middle Jurassic (Upper Aalenian to Middle Bathonian): relations between biodiversity and paleogeography'. Tethyan, Pacific, Boreal domains and associated epicratonic platforms divided into 16 paleobiogeographical provinces. Provinces that show strong endemism are isolated (Boreal and SE Tethyan margins))

Muller, R.D. & M. Seton (2015)- Paleophysiography of ocean basins. In: Encyclopedia of Marine Geosciences, Springer, Dordrecht, p. 1-15.
(Review of ocean basins, with global reconstructions for last 200 Myrs)

Muller, R.D., M. Seton, S. Zahirovic, S.E. Williams, K.J. Matthews, N.M. Wright, G.E. Shephard, K.T. Maloney, N. Barnett-Moore, M. Hosseinpour, D.J. Bower & J. Cannon (2016)- Ocean basin evolution and global-scale plate reorganization events since Pangea breakup. Annual Review Earth Planetary Sci. 44, p. 107-138.
(Revised global plate motion model from Triassic at 230 Ma- present day. Plate velocities controlled or modified by increases in subduction processes and collisional events and ridge subduction events)

Nakamura, K., D. Shimizu & Z. Liao (1985)- Permian palaeobiogeography of brachiopods based on faunal provinces. In: K. Nakazawa & J.M. Dickins (eds.) The Tethys, her paleogeography and paleobiogeography from Paleozoic to Mesozoic, Tokai University Press, Tokyo, p. 185-198.

Nicoll, R.S. (2004)- New Permian cold water conodont faunas from the Tethyan Gondwanan margin of Australia. GSA Rocky Mountain and Cordilleran Joint Meeting, 20-11 *(Abstract only)*

Nicoll, R.S. & I. Metcalfe (1998)- Early and Middle Permian conodonts from the Canning and southern Carnarvon basins, W Australia; their implications for regional biogeography and paleoclimatology. In: G.R. Shi et al. (eds.) Strzelecki Int. Symp. Permian of eastern Tethys; biostratigraphy, palaeogeography and resources. Proc. Royal Soc.Victoria 110, 1-2, p. 419-461.
(Small, low diversity conodont faunas from E-M Permian of S Carnarvon- Canning basins of W Australia (palaeolatitude up to 60°S). Species of Hindeodus and Vjalovognathus cool-temperature tolerant forms were first conodonts to invade after Late Carboniferous-E Permian glaciation. Faunas of similar age from Timor (palaeolatitude ~45°S) significantly greater faunal diversity)

Nicoll, R.S. & I. Metcalfe (2001)- Cambrian to Permian conodont biogeography in East Asia-Australasia. In: I. Metcalfe et al. (eds.) Faunal and floral migrations and evolution in SE Asia-Australasia. Balkema, Lisse, p. 59-72.
(Conodont faunas of allochthonous East Asian terranes show biogeographic affinities with Australasia during Cambrian- Permian, suggesting close proximity or Australian Gondwanaland from ~500- 250 Ma)

Nie, S., D.B. Rowley & A.M. Ziegler (1990)- Constraints on the location of Asian microcontinents in Palaeo-Tethys during the Late Palaeozoic. In: W.S. McKerrow & C.R. Scotese (eds.) Palaeozoic palaeogeography and biogeography, Geol. Soc., London, Mem. 12, p. 397-409.
(Overview of Permian terranes history, mainly of mainland Asia. Biogeographic provinces well developed in Late Paleozoic due to steep equator-to-pole gradients. As continents rifted from S margin of Paleo-Tethys, they lost temperate Gondwanan affinities and acquired sub-tropical to tropical floras and faunas. A S belt of terranes, from Helmand block in Iran-Afghanistan, through W Qiangtang and Lhasa blocks of Tibet to Sibumasu block of Thailand-Malaya, all rifted off margins of Gondwana in Permian. Cathaysian floras existed in N parts of Gondwana (New Guinea), and since Cathaysian plants like Gigantopteris had to be dispersed by seeds this suggests land connections between Cathaysian microcontinents and Gondwana)

Niu, Y., Y. Liu, Q. Xue, F. Shao, S. Chen, M. Duan, P. Guo, H. Gong, Y. Hu, Z. Hu, J. Kong et al. (2015)- Exotic origin of the Chinese continental shelf: new insights into the tectonic evolution of the western Pacific and eastern China since the Mesozoic. Science Bull. (China) 60, 18, p. 1598-1616.
(online at: http://engine.scichina.com/publisher/scp/journal/SB/60/18/10.1007/s11434-015-0891-z?slug=full%20text)
(Basement of continental shelf beneath E and S China Seas may be of exotic origin, geologically unrelated to continental lithosphere of E China. Jurassic-Cretaceous granitoids in region associated with W Pacific oceanic subduction. 'Sudden' termination of granitoid magmatism at ~88 ± 2 Ma suggests trench jam at ~100 Ma, pointing to collision of buoyant oceanic plateau or microcontinent. Jammed trench (suture) located near coastline of SE continental China. Trench jam at ~100 Ma led to re-orientation of Pacific plate motion, making boundary between Pacific plate and newly accreted plate of E Asia transform fault E of exotic-origin continental shelf. This explains apparent ~40 Myr magmatic gap from ~88 to ~50 Ma)

Noakes, L.C. (1977)- Review of provenance for mineral sands and tin in Southeast Asia. United Nations ESCAP, CCOP Techn. Bull. 11, p. 157-168.

Ogg, J.G., F.M. Gradstein, J.A. Dumoulin, M. Sarti & P. Brown (1994)- Sedimentary history of the Tethyan margins of Eastern Gondwana during the Mesozoic. In: R.A. Duncan et al. (eds.) Synthesis of results from Scientific Drilling in the Indian Ocean, American Geophys. Union (AGU), Geophys. Monograph 70, p. 203-224.
(Review of Mesozoic of Gondwana margins of E Tethys Ocean (Australian and Himalayan margins, Timor and ODP Legs 122-123). Region drifted N in Triassic, entering tropical paleolatitudes in Late Triassic- E Jurassic, then returned to mid-latitudes for M Jurassic- E Cretaceous. Episodes of deltaic sandstone progradation over shelves. Widespread hiatus between Callovian shelf deposits and Oxfordian deep-water sediments, coinciding with block faulting off NW Australia. Shallow depths of carbonate compensation during Late Jurassic- E Cretaceous over most of Argo basin off NW Australia caused deposition of radiolarian-rich claystone. Volcanism accompanied final stages of rifting between India and Australia in Late Berriasian-Valanginian. Late Barremian and Aptian rise in CCD, with warming and increased organic-rich claystone)

Oh, C., J. Legrand, K. Kim, M. Philippe & I. Paik (2011)- Fossil wood diversity gradient and Far-East Asia palaeoclimatology during the Late Triassic- Cretaceous interval. J. Asian Earth Sci. 40, p. 710-721.
(Mesozoic fossil floras of E Asia (China, Mongolia, Siberia, Korea, Japan) with (1) northern Tetori flora reflecting warm-temperate and moderately humid climate and (2) southern Ryoseki-type floras with features of hot and arid/ semi-arid floras and Tetori-type plants being 'typical of conditions'. (nothing on SE Asia))

Okada, H. & N.J. Mateer (eds.) (2000)- Cretaceous environments of Asia. Developments in Palaeontology and Stratigraphy 17, Elsevier, p. 1-255.

(Collection of 15 papers on Cretaceous of Japan, Philippines, mainland E Asia; nothing on Indonesia/ New Guinea)

Oostingh, C.H. (1938)- Betrekkingen tusschen het Indische en het Mediterrane Tertiair. Handelingen 8e Nederl. Indisch Natuur Wetenschappelijk Congres, Soerabaja 1938, p.
('Relationships between the East Indies and Mediterranean Tertiary'. Neogene mollusc biostratigraphy and comparisons)

Ozawa, T. (1987)- Permian fusulinacean biogeographic provinces in Asia and their tectonic implication. In: A. Taira & M. Tashiro (eds.) Historical biogeography and plate tectonic evolution of Japan and Eastern Asia, Terra Scient. Publ., Tokyo, p. 45-63.

Page, K.N. (2008)- The evolution and geography of Jurassic ammonoids. Proc. Geologists Assoc. 119, 1, p. 35-57.
(Jurassic ammonites 7 suborders, in ~20 distinguishable biogeographical provinces and subprovinces. S Pan-Tethyan Realm includes Mediterranean-Caucasian, E Pacific, Indo-Pacific and Austral realms/ subrealms. Indo-Malgach Province recognizable first in Callovian, with endemic Sphaeroceratidae (Macrocephalites, Subkossmatia) and Perisphinctidae (Indosphinctes, Choffatia, Kinkeliniceras, etc.). Persisted into Oxfordian times, with place of Macrocephalitinae taken by endemic Mayatinae. By Tithonian, several restricted Indo-Pacific/Austral genera and endemic species: Pachysphinctes, Virgatosphinctes, Aulacosphinctoides, Himalayitidae, Neocomitidae (incl. endemic Blanfordiceras), Uhligites, etc.)

Peltzer, G. & P. Tapponnier (1988)- Formation and evolution of strike-slip faults, rifts, and basins during the India-Asia collision: an experimental approach. J. Geophysical Research 93, B12, p. 15085-15117.
(More extensive discussion of Tapponnier et al. 1982 plasticine models, used to explain SE Asia extrusion)

Philippe, M., M. Bamford, S. McLoughlin, L.S.R. Alves, H.J. Falcon-Lang, S. Gnaedinger, E.G. Ottone, M. Pole, A. Rajanikanth, R.E. Shoemaker, T. Torres & A. Zamuner (2004)- Biogeographic analysis of Jurassic-Early Cretaceous wood assemblages from Gondwana. Rev. Paleobotany Palynology 129, p. 141-173.
(Distribution of Jurassic- Early Cretaceous fossil wood across Gondwana suggests 5 climate zones: summer wet, desert, winter wet, warm temperate, cool temperate. Araucarian-like conifer wood dominant, cosmopolitan element, whereas other taxa more provincialism)

Pitfield, P.E.J. (1987)- Report on the geochemistry of the Tin islands of Indonesia. British Geological Survey, Overseas Directorate, Report No. MP/87/9/R, p.

Pitfield, P.E.J. (1987)- Geochemistry of the Tin Islands granites of Indonesia in relation to those of Peninsular Malaysia. Warta Geologi 13, p. 125-133.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1987003.pdf)
(In Thai-Malay Peninsula two separate granite provinces established, separated by Raub-Bentong line suture: (1) Main Range granitoids (associated with 'Sibumasu' Lower Paleozoic shallow marine sequences) and (2) Eastern Province (C and E Belts) granitoids (associated with Permo-Triassic deeper water volcano-sedimentary sequences). Tin Islands of Indonesia largely fall in Permo-Triassic volcano-sedimentary terrain, but characteristics of granites variable. Comparisons of granitoids suggest S-ward extrapolation of Raub-Bentong line between Karimun (E Province type) and Kundur (Main Range type) along chain of isles comprising Merak gabbro. Further S it may pass through C Singkep Island between Dabo (E Province type) and unnamed Main Range pluton in SW Belitung seems to comprise largely E Province plutons)

Pitfield, P.E.J., E.J. Cobbing, M.C.G. Clarke, D.I.J. Mallick & L.H. Teoh (1987)- Granite provinces in the Southeast Asian Tin Belt. In: M.K. Horn (ed.) Trans. 4th Circum Pacific Energy and Mineral Resources Conf., Singapore 1986, p. 575-589.
(Four granite provinces delineated in SE Asia tin belt: (1) Eastern Province (I-type, Carboniferous- Triassic 200-280 Ma; volcanic arc, and 70-80 Ma), (2) Main Range (S-type, mainly Triassic, 200-230 Ma; syn-collisional), (3) N Thailand Migmatitic (S-type, Permo-Triassic; syn-collisional) and (4) Western (Peninsular

Thailand- Burma, S and I-types, Cretaceous 82-98 and 130 Ma). E and C Belts of Peninsular Malysia distinguished by Hutchison (1977), but are similar. Tin Islands of Indonesia part of E Province, Permo-Triassic. Widespread Cretaceous post-orogenic plutons, but not in Main Range and Tin Islands and not associated with mineralization)

Pitfield, P.E.J., L.H. Teoh & E.J. Cobbing (1990)- Textural variation and tin mineralization in granites from the main range province of the Southeast Asian Tin Belt. Geological Journal 25, p. 419-429.
(Textural evolution from coarse K-feldspar megacrystic granite, through heterogeneous granite porphyry to microgranite corresponds to sequence of geochemical evolution)

Polhemus, D.A. (1996)- Island arcs, and their influence on Indo-Pacific biogeography. A. Keast & S.E. Miller (eds.) The origin and evolution of Pacific island biotas, New Guinea to eastern Polynesia: patterns and processes, SPB Academic Publishing, Amsterdam, p. 51-66.

Powell, C.M. & B.D. Johnson (1980)- Constraints on the Cenozoic position of Sundaland. Tectonophysics 63, p. 91-109.
(Old paper on India collision and evolution of Sundaland)

Powell, C. McA., B.D. Johnson & J.J. Veevers (1980)- Constraints on the positions of India, Australia and Southeast Asia since the Late Cretaceous. Proc. 5th Conf.SE Asia Petroleum Expl. Soc. (SEAPEX V), Singapore, p. 82-89.
(Paleomagnetic data from Indochina, Malaysia and Kalimantan show similar declination at similar times, suggesting much of older continental nuclei of SE Asia acted as single continental block ('Sundaland') at least since ~80 Ma. Plate motions derived from continental paleomagnetism and seafloor spreading show continental Sundaland moved W-ward across wake of the N-moving Greater India ~15 My ago (M Miocene) while at e same time Australia moved N-ward across Sundaland 's wake)

Qiu, Y. & B. Zhang (2000)- Eastern extension of the Paleotethys in southern China. Zhongquo Quyu Dizhi (Regional Geology of China), Beijing, 19, 2, p. 175-180.
(E section of Paleotethys suture extends from Qinghai-Tibet to W Yunnan, S to Putong, Changning-Menglian, Uttarradit and Bentong-Raub, through Kalimantan (Kuching), Palawan, Luzon, Taiwan and Japan. Present 'U' shape of suture zone caused by N-moving Indian plate, S China Sea spreading and W-pushing Philippine Sea plate since 45 Ma. Restored Paleotethys suture orienteded E-W from Late Cretaceous- Early Cenozoic)

Rangin, C. (2016)- Rigid and non-rigid micro-plates: Philippines and Myanmar-Andaman case studies. Comptes Rendus Geoscience 348, 1, p. 33-41.
(online at: https://www.sciencedirect.com/science/article/pii/S163107131500200X)
(Philippine Mobile Belt complex tectonic zone composed of rigid rotating crustal blocks. In Myanmar, N-most tip of Sumatra-Andaman subduction system also complex zone of various crustal blocks in-between convergent plates, but sustaining internal deformation with platelet buckling, indicative of non-rigid behavior)

Raven, P.H. & D.I. Axelrod (1972)- Plate tectonics and Australasian paleobiogeography. Science 176, 4042, p. 1379-1386.
(On relationship between modern faunal- floral distributions and Australia- SE Asia plate tectonic history)

Rees, P. M., A.M. Ziegler, M.T. Gibbs, J.E. Kutzbach, P.J. Behling & D.B. Rowley (2002)- Permian phytogeographic patterns and climate data/model comparisons. J. Geology 110, 1, p. 1-31.
(online at: www.geo.arizona.edu/rees/2202-4.pdf)
(Global 'icehouse-hothouse' climate transition began during Permian. Reconstructions for two stages, Sakmarian (285-280 Ma) and Wordian/ Kazanian (267-264 Ma), integrating floral with lithological data to determine climates globally)

Ren, J., B. Niu, J. Wang, X. Jin, L. Zhao & R. Liu (2013)- Advances in research of Asian geology- a summary of 1:5M International Geological Map of Asia project. J. Asian Earth Sci. 72, p. 3-11.

(Asia is composite continent consisting of three major cratons: Siberian, Indian and Arabian and three huge orogenic belts with minor cratons and microcontinents. Main body of Asian continent took its shape in Mesozoic. Main orogenic belts: Paleo-Asian, Tethyan and Pacific. Small cratons, like Sino-Korea, Yangtze, Tarim, and Sibumasu were on N margin of Gondwana before disappearance of Paleo-Asian Ocean. Ophiolites in Asia progressively younger from N to S, reflecting accretion of Asia by S-ward migration of orogenic belts. Large amounts of Mesozoic volcanic rocks in E Asian coastal areas mainly of Cretaceous age. Most Carboniferous- Permian volcanic rocks in C. Asia not arc volcanics, but product of extensional stage)

Ren, J., K. Tamaki, Sitian Li & J. Zhang (2002)- Late Mesozoic and Cenozoic rifting and its dynamic setting in Eastern China and adjacent areas. Tectonophysics 344, p. 175-205.
(On widespread Late Mesozoic and Cenozoic extension in E China and adjacent areas. First rift stage in Late Jurassic- E Cretaceous, second phase in NE Asia. Paleogene stage widespread continental rift systems and continental margin basins in E China (incl. S China Sea))

Rensch, B. (1936)- Die Geschichte des Sundabogens, eine tiergeographische Untersuchung. Borntraeger, Berlin, p. 1-318.
('The history of the Sunda Arc: a zoogeographic investigation'. Results of 1927 German biological expedition to the Lesser Sunda Islands (Lombok, Sumbawa, Flores))

Replumaz, A. (1999)- Reconstruction de la zone de collision Inde-Asie, Etude centree sur lôIndochine. Ph.D. Thesis, Universite Paris 7, p. 1-230.
('Reconstruction of the India- Asia collision zone- a study centered on Indochina')

Replumaz, A., F.A. Capitanio, S. Guillot, A.M. Negredo & A. Villasenor (2014)- The coupling of Indian subduction and Asian continental tectonics. Gondwana Research 26, 2, p. 608-626.
(Reconstruction of India-Asia subduction-continent deformation history, using tomography, etc. Major breakoff between India and Tethys Ocean at ~45 Ma. In W vertical slab continuous to continent overrides deeper detached Tethys slab; in E no slab imaged. After Tethys slab broke off, subduction only resumed in C of margin. Second breakoff event detached C Indian slab from margin at ~15 Ma, which renewed Indian lithosphere underthrusting below Asia. Breakoff followed by large stresses in upper plate interiors, propagating at large distance from margin, along belt oriented at ~45° from trench. Successive strike-slip faulting across Asian continent, in agreement with models)

Replumaz, A., S. Guillot, A. Villasenor & A.M. Negredo (2013)- Amount of Asian lithospheric mantle subducted during the India/Asia collision. Gondwana Research 24, p. 936-945.
(Seismic tomography suggests existence of three Asian continental slabs. Asian continental subduction could accommodate up to 45% of Asian convergence; rest of convergence possibly accommodated by extrusion and shallow subduction/ underthrusting processes. Continental subduction major lithospheric process in intraplate tectonics of supercontinent like Eurasia)

Replumaz, A, H. Karason, R.D. van der Hilst, J. Besse & P. Tapponnier (2004)- 4-D evolution of SE Asiaôs mantle from geological reconstructions and seismic tomography. Earth Planetary Sci. Letters 221, p. 103-115.
(Reconstructions of SE Asia block motions from India to Taiwan since ~50 Ma from tomography of subducted lithosphere)

Replumaz, A., A.M. Negredo, S. Guillot & A. Villasenor (2010)- Multiple episodes of continental subduction during India/Asia convergence: insight from seismic tomography and tectonic reconstruction. Tectonophysics 483, p. 125-134.
(Tomographic anomalies at <1100 km under India/Asia collision zone interpreted as continental slabs subducted during collision, and used to constrain evolution of episodes of continental subduction. In W part two episodes of steep subduction of N margin of India: (1) starting at~40-30 Ma and ending by slab breakoff at ~15 Ma; (2) subduction beneath Hindu Kush mountains since ~8 Ma. E of collision zone, beneath Burma and Andaman Sea, two episodes of SE-ward extrusion followed by subduction. Extruded portions initially located along N margin of India)

Replumaz, A. & P. Tapponnier (2003)- Reconstruction of the deformed collision zone between India and Asia by backward motion of lithospheric blocks. J. Geophysical Research 108, B6, p. 101029-101053.
(Reconstructions of SE Asia block motions from India to Taiwan since ~50 Ma. Extrusion absorbed ~30% of convergence between India and Siberia during entire collision span, but varied with time)

Rich, T.H. & G.C. Young (1996)- Vertebrate biogeographic evidence for connections of the east and southeast Asian blocks with Gondwana. In: Z.X. Li, I. Metcalfe & C.McA. Powell (eds.) Breakup of Rodinia and Gondwanaland and Asembly of Asia, Australian J. Earth Sci. 43, 6, p. 625-634.
(Fluctuating affinities between aquatic faunas of China and Australia in Devonian. Within S China Block similar endemic freshwater fish faunas on Yangtze and Huanan terranes demonstrate juxtaposition in mid-Paleozoic. Triassic tetrapod faunas of Australia quite distinct from China and Thailand)

Richards, J.P. (2015)- Tectonic, magmatic, and metallogenic evolution of the Tethyan orogen: from subduction to collision. Ore Geology Reviews 70, p. 323-345.
(Review of tectonic, magmatic and metallogenic history of Tethyan orogen fromt Carpathians to Indochina, with focus on formation of porphyry Cu±Mo±Au deposits, the most characteristic mineral deposit type formed during both subduction and collisional processes in region)

Richter, B., M. Fuller, E. Schmidtke, U Tin Myint, U Tin Ngwe, U Mya Win & S. Bunopas (1993)- Paleomagnetic results from Thailand and Myanmar: implications for the interpretation of tectonic rotations in Southeast Asia. In: B.K. Tan et al. (eds.) 7th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA VII), Bangkok 1991, J. Southeast Asian Earth Sci. 8, p. 247-255.
(Shan Hills of E Myanmar (Cretaceous Phuket-Mandalay foldbelt) and Khorat Plateau of Thailand rotated ~40° CW since Cretaceous)

Ricou, L.E. (1994)- Tethys reconstructed: plates, continental fragments and their boundaries since 260 Ma from Central America to Southeastern Asia. Geodinamica Acta 7, 4, p. 169-218.
(Evolution of the former Tethys ocean)

Ricou, L.E. (1995)- Tethys and transit plate patterns viewed against long-term periodicity of magnetic field reversals. Physics Earth Planetary Interiors 87, p. 255-265.
(On Tethyan pattern of transit plates between converging boundary in N and diverging boundary in S (repeatedly offset by S-ward shifts))

Ridd, M.F. (1971)- South East Asia as part of Gondwana. Nature 234, p. 531-533.
(Stratigraphic evidence in Thailand and Malaya suggest they were once joined with India (E Permian tilloids in Phuket Group of Thailand, etc., cratonic clastic source from W for Malay Peninsula and Thailand, detrital diamonds in Permian Phuket Gp of Thailand, etc.). India and SE Asia must have drifted N to collide with mainland Asia after break-up of Gondwanaland. 'Interesting' reconstruction)

Ridd, M.F. (1980)- Possible Palaeozoic drift of SE Asia and Triassic collision with China. J. Geol. Soc., London, 137, 5, p. 635-640.
(Paleozoic- E Mesozoic of Thai-Malay Peninsula provide evidence of subduction zone to E and, in Lower Paleozoic, cratonic sediment source to W. First paper to recognize separation of W Thai- Malay Peninsula from Gondwana in mid-Paleozoic and collision with mainland Asia in Late Triassic)

Ridd, M.F. (2015)- East flank of the Sibumasu block in NW Thailand and Myanmar and its possible northward continuation into Yunnan: a review and suggested tectono-stratigraphic interpretation. J. Asian Earth Sci. 104, 5 160-174.
(E flank of Sibumasu block was passive continental margin, marked in NW Thailand by absence of M Permian-Triassic platform carbonates, widespread across Sibumasu further W. Instead, hemipelagic cherts, mudstones and sandstones including turbidites. Devonian-Triassic accretionary wedge in front of Sukhothai volcanic arc thrust W-wards across E flank of Sibumasu in M-L Triassic, then became source of terrigenous clastic rocks in

foredeep basin in W. Boundary with Sibumasu Permo-Triassic carbonate platform further W is Mae Ping-Nam Teng Fault system. N-wards in Myanmar and Yunnan Sibumasu Permo-Triassic carbonate shelf continues as Shan Plateau and Baoshan Block. E flank is represented by Changning-Menglian Belt, and Paleotethys 'cryptic suture' in Thailand possibly joins with Lancangjiang Suture)

Ridd, M.F. (2016)- Should Sibumasu be renamed Sibuma? The case for a discrete Gondwana-derived block embracing western Myanmar, upper Peninsular Thailand and NE Sumatra. J. Geol. Soc., London, 173, 2, p. 249-264.
(Luxi-Nujiang suture extends from Yunnan into Myanmar and continues into Thailand and Malacca Strait. It separates the Gondwana-derived Sibumasu Block' into two terranes: (1) Irrawaddy Block in W, with thick Lower Permian, glacial diamictite-bearing sediments (= 'Phuket Slate Belt' of Thailand/ Tengchong Block of Yunnan/ Lhasa Terrane in Tibet? and much of Bohorok facies of Sumatra); (2) Sibuma Block in E, with local, rel. thin, Lower Permian marine ice-rafted deposits (= Shan-Tai Plateau of E Myanmar/ Baoshan Block of Yunnan/ Qiantang Terrane of Tibet?). NE Sumatra diamictite-bearing E Permian probably also part of Irrawaddy Block. Late Cretaceous-Paleogene dextral India-Australia oceanic transform propagated onshore as strike-slip fault, which disrupted Irrawaddy Block)

Rigby, J.F. (1998)- Upper Palaeozoic floras of SE Asia. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publ., Leiden, p. 73-82.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/01/Rigby.pdf)
(Minor Carboniferous flora in Thailand and W Malaysia (including 'Kuantan flora'), probably similar to S China floras. More extensive Permian floras known from Thailand, Laos, W. Malaysia, Sumatra and Irian Jaya. All are 'Cathaysian' floras, but some floras from Thailand and Irian Jaya also contain Gondwanan Glossopteris)

Rong, J., A.J. Boucot, Y.Z. Su & D.L. Strusz (1985)- Biogeographical analysis of late Silurian brachiopod faunas, chiefly from Asia and Australia. Lethaia 28, 1, p. 39-60.
(Silurian shallow marine brachiopod Retziella Fauna known from SW Tienshan, China, N Vietnam and E Australia. Possibly also in N Korea, C Pamirs, Afghanistan and New Zealand (Sino-Australian Province). Coeval Tuvaella Fauna occurs only in S marginal belt of Siberian Plate (Mongolo-Okhotsk Province))

Ross, C.A. & J.R.P. Ross (1985)- Carboniferous and Early Permian biogeography. Geology 13, 1, p. 27-30.

Rowley, D.B. (1992)- Reconstructions of the Circum-Pacific region. In: G.E.G. Westermann (ed.) The Jurassic of the Circum-Pacific, Cambridge University Press, p. 15-26.

Roy, S.S. (1978)- Eastern Tethys and microplates framed in Himalayan, Central and Southeast Asian geology. In: P. Nutalaya (ed.) Proc. 3rd Regional Conf. Geology and Mineral Resources SE Asia, GEOSEA III, Bangkok 1978, p. 165-172.
(Early version of SE Asian plates history)

Safonova, I. & S. Maruyama (2014)- Asia: a frontier for a future supercontinent Amasia. Int. Geology Review 56, 9, p. 1051-1071.
(online at: www.tandfonline.com/doi/pdf/10.1080/00206814.2014.915586)
(Review of tectonic blocks and continental growth of Asia and prediction of formation of future supercontinent 'Amasia' 200-250 Myrs from now)

Santini, F. & R. Winterbottom (2002)- Historical biogeography of Indo-Western Pacific coral reef biota: is the Indonesian region a centre of origin? J. Biogeography 29, 29, p. 189-205.
(Most lineages of Indo-West Pacific marine fauna may have originated in western Indian Ocean, Australia, or SW Pacific, probably from lineages that remained isolated after breakup of Gondwanan supercontinent, or because of movement of island arcs)

Sashida, K. & H. Igo (1999)- Occurrence and tectonic significance of Paleozoic and Mesozoic radiolaria in Thailand and Malaysia. In: I. Metcalfe (ed.) Gondwana dispersion and Asian accretion, IGCP 321 Final Results Volume, Balkema, Rotterdam, p. 175-196.
(Cherts and associated shales of Thailand and Peninsular Malysia contain rich U Devonian- M Triassic radiolarian faunas, allowing subdivision in 13 zones (representing Paleo-Tethys Ocean sediments). Timing of collision of Shan-Thai with E Malaya is E Triassic and Shan-Tai with Indochina Late Triassic or later)

Sato, T. (1975)- Marine Jurassic formations and faunas in Southeast Asia and New Guinea. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 15, p. 151-189.
(Compilation of Jurassic fossils/ stratigraphy in SE Asia. Jurassic rel. rare. May be classified as (1) thick geosynclinal sequences in Sumatra, Java (?; JTvG), Timor and New Guinea; (2) marine calcareous facies with rich macrofaunas in E Sulawesi, Sula, Buru, Ceram and Misool; (3) marine clastic sediments with poor molluscs in W Thailand/ Burma, W Sarawak/NW Kalimantan, Laos, Cambodia, Vietnam, etc. and (4) Khorat Group continental red beds in NE Thailand- S Laos)

Schellart, W.P. & G.S. Lister (2005)- The role of the East Asian active margin in widespread extensional and strike-slip deformation in East Asia. J. Geol. Soc., London 162, p. 959-972.
(Most of E Asia Cenozoic deformation not extrusion tectonics, but back-arc extension caused by E-ward rollback of subducting slab along E Asian active margin and collapse of overriding plate towards retreating hinge-line. Extension took place along ~7400 km long stretch of E Asian margin during most of Cenozoic)

Schwan, W. (1985)- The worldwide active Middle/Late Eocene geodynamic episode with peaks at ±45 and ±37 Mybp, and implications and problems of orogeny and sea-floor spreading. Tectonophysics 115, p. 197-234.
(Numerous tectonic events globally in M-L Eocene at ~45 Ma and ~37 Ma, suggesting major reorganization in plate tectonic pattern. Not much specifically on SE Asia)

Scotese, C. (2001)- Atlas of Earth History, PALEOMAP Project, University of Texas, Arlington, p. 1-52.
(Atlas of global plate and paleogeographic reconstructions for 20 time periods from 650 Ma- Recent. For SE Asia major source was Hutchison (1989))

Scotese, C.R., A.J. Boucot & W.S. McKerrow (1999)- Gondwanan palaeogeography and palaeoclimatology. J. African Earth Sci. 28, p. 99-114.
(Reconstructions of Gondwana with interpreted paleoclimates from Late Ordovician-Cretaceous)

Scotese, C.R. & R.P. Langford (1995)- Pangea and paleogeography of the Permian. In: P.A. Scholle et al. (eds.) The Permian of Northern Pangea. Springer, Berlin, p. 3-19.

Searle, M.P., L.J. Robb & N.J. Gardiner (2016)- Tectonic processes and metallogeny along the Tethyan mountain ranges of the Middle East and South Asia (Oman, Himalaya, Karakoram, Tibet, Myanmar, Thailand, Malaysia). In: J. Richards (ed.) Tectonics and metallogeny of the Tethyan orogenic belt, Soc. Economic Geol., Spec. Publ. 19, Chapter 12, p. 301-327.
(Genesis of mineral deposits in Tethyan collision zones of Asia, in: (1) oceanic crust (hydrothermal Cu-Au; Fe, Mn nodules) and mantle (Cr, Ni, Pt), in ophiolite complexes around Arabia/India- Asia collision (Oman, to Myanmar, Andaman Islands); (2) island arcs and ancient subduction complexes (VMS Cu-Zn-Pb), in Dras-Kohistan arc (Pakistan) and arc complexes along Myanmar-Andaman segment; (3) Andean-type margins (Cu-Au-Mo porphyry; epithermal Au-Ag) in Jurassic-Eocene Transhimalayan ranges and Myanmar; (4) continent-continent collision zones prominent along Myanmar-Thailand-Malaysia Sn-W granite belts, less common along Himalaya. Mogok metamorphic belt of Myanmar known for gemstones associated with regional high T metamorphism (ruby, spinel, sapphire, etc))

Sengor, A.M.C. (1979)- Mid-Mesozoic closure of Permo-Triassic Tethys and its implications. Nature 279, 5714, p. 590-593.
(First definition of the Cimmerian continent as thin and very long continental strip between Paleo- and Neo-Tethys (in SE Asia= Sibumasu; JTvG))

Sengor, A.M.C. (1984)- The Cimmeride orogenic system and the tectonics of Eurasia. Geol. Soc. America (GSA), Spec. Paper 195, p. 1-74.
(Major review of plate tectonic history of the Alpine- Himalayan system, which is product of obliteration of the Tethys Ocean. During E-M Mesozoic Tethyan domain consisted of two oceans, separated by string of continents called Cimmerian continent, which had begun separating from N margin of Gondwanaland in Triassic (although rifting in E-most parts had begun earlier). N of Cimmerian continents was Paleo-Tethys, S of it was Neo-Tethys. Closure of Paleo-Tethys formed Cimmerides (Carpathians- Caucasus-Tibet to E Sulawesi), closure of Neotethys formed the Alpides)

Sengor, A.M.C. (1985)- The story of Tethys: how many wives did Okeanos have? Episodes 8, 1, p. 3-12.
(online at: www.episodes.co.in/www/backissues/81/ARTICLES--3.pdf)
(Tethys ocean is ancestral sea out of which Alpine-Himalayan mountain ranges grew. The main Tethys had formed until Triassic, but older Tethys (Paleo-Tethys) existed, the closure of which formed Cimmeride orogenic system, which is distinct from, but largely overprinted by Alpide orogenic system, which is product of demise of 'classical Tethys' (Neo-Tethys))

Sengor, A.M.C. (1985)- Die Alpiden und die Kimmeriden: Die verdoppelte Geschichte der Tethys. Geol. Rundschau 74, 2, p. 181-213.
(Similar to Sengor (1986) below. Repeated episodes of Tethyan Ocean closing: Paleotethys by accretion of Cimmerides terranes, Neotethys by accretion of Alpide terranes)

Sengor, A.M.C. (1986)- The dual nature of the Alpine-Himalayan system: Progress, problems and prospects. Tectonophysics 127, 3, p. 177-195.
(Alpine-Himalayan system interpreted as places where two independent Tethyan ocean complexes (Palaeo- and Neo-Tethys) vanished during Permo-Carboniferous- E Cretaceous and late Cretaceous- Present respectively. Older orogen is called Cimmerides, younger Alpides. Cimmerides, together forming Tethysides)

Sengor, A.M.C. (1987)- Tectonics of the Tethysides: orogenic collage development in a collisional setting. Annual Review Earth Planetary Sci. 15, p. 213-244.
(Review of plate tectonic history of the Alpine- Himalayan- Indonesian mountain ranges since Late Paleozoic)

Sengor A.M.C. (1992)- The Palaeo-Tethyan suture: a line of demarcation between two fundamentally different architectural styles in the structure of Asia. Island Arc 1, 1p. 78-91.
(Paleo-Tethyan suture separates regions characterized by two different tectonic styles in Tethysides. N of suture (Iran, Turkmenistan, Afghanistan, Tadjikistan, Kirgizstan, Uzbekistan, Kazakhstan large parts of Russia and China), orogenic development characterized by large subduction-accretion complexes developed since Late Proterozoic. S of Paleo-Tethyan suture, orogeny characterized by Sumatra- or Andean-type continental margin arc that in places became island arc by back-arc basin rifting and later collided with Atlantic continental margin to create Alpine- or Himalayan-type orogenic belts. Paleo-Tethyan suture is line across which rate of continental enlargement by subduction-accretion changed dramatically. Rel. little on SE Asia)

Sengor A.M.C. (1998)- Die Tethys: vor hundert Jahren und heute. Mitteilungen Osterreichischen Geol. Gesellschaft 89 (1996), p. 5-177.
(online at: www2.uibk.ac.at/downloads/oegg/Band_89_5_177.pdf)
('The Tethys: hundred years ago and today'. Extensive historic review of discovery and development of interpretations of Tethys Ocean(s). Includes chapter (p. 104-114) on contributions to tectonic understanding of mountain building by the Dutch 'heroes' geologists working in Indonesia between 1900-1940, particularly Molengraaff, Wing Easton who were early supporters of 'mobilism', i.e. Wegener's continental drift hypothesis)

Sengor, A.M.C., D. Altiner, A. Clin, T. Ustaosmer & K.J. Hsu (1988)- Origin and assembly of the Tethyside orogenic collage at the expense of Gondwana Land. In: M.G. Audley-Charles & A. Hallam (eds.) Gondwana and Tethys, Geol. Soc., London, Spec. Publ. 37, p. 119-181.

(Major review of plate tectonic history of the Alpine- Himalayan- Indonesian mountain ranges since Late Paleozoic. Mainly on mainland S Asia)

Sengor, A.M.C. & S. Atayman (2009)- The Permian extinction and the Tethys: an exercise in global geology. Geol. Soc. America (GSA), Spec. Paper 448, p. 1-85.
(End-Permian faunal extinctions may be consequence of sealing off of Paleo-Tethys ocean from Panthalassa by land bridge formed from Cimmerian Continent, Cathaysian and Manchuride orogenic collages and Tuva-Mongol fragment of eastern Altaids. Limited Late Permian water exchange between Paleo-Tethys and Panthalassa and Neo-Tethyan rifts, starting anoxia in Paleo-Tethys)

Sengor, A.M.C., S. Atayman & R. Presnell (2008)- Paleo-Tethys, Permian extinction, and stratabound copper-sulfide deposits of the Cimmerides. In: J.E. Spencer & S.R. Titley (eds.) Ores and orogenesis: Circum-Pacific tectonics, geologic evolution and ore deposits, Arizona Geol. Soc. Digest 22, p. 19-30.

Sengor, A.M.C., A. Cin, D.B. Rowley & S. Nie (1991)- Magmatic evolution of the Tethysides. Palaeogeogr. Palaeoclim. Palaeoecology 87, p. 411-440.
(Five maps showing the spatial and temporal evolution of magmatic activity along Tethysides for: (1) late Carboniferous-Permian; (2) Triassic- E Jurassic; (3) M Jurassic-early Cretaceous; (4) late Cretaceous-early Cenozoic and (5) late Cenozoic-present)

Sengor, A.M.C., A. Cin, D.B. Rowley & S.Y. Nie (1993)- Space-time patterns of magmatism along the Tethysides: a preliminary study. J. Geology 101, 1, p. 51-84.
(Five maps of magmatism along the Tethysides for: Late Carboniferous and Permian (320-248 Ma), Triassic and Early Jurassic (247-188 Ma), Middle Jurassic-Early Late Cretaceous (187-98 Ma), early Late Cretaceous-early Cainozoic (97-25 Ma), and late Cainozoic (24-0 Ma))

Sengor, A.M.C. & K.J. Hsu (1984)- The Cimmerides of Eastern Asia: history of the eastern end of Palaeo-Tethys. Mem. Soc. Geologique France 17, p. 139-167.

Sengor, A.M.C. & B.A. Natalin (1996)- Palaeotectonics of Asia, fragments of a synthesis. In: A. Yin & T.M. Harrison (eds.) Tectonic evolution of Asia, Cambridge University Press, p. 486-640.

Setchell, W.A. (1930)- The Wallace and Weber lines: a suggestion as to climate boundaries. Proc. 4th Pacific Science Congress, Java 1929, III, p. 311-321.

Seton, M. & R.D. Muller (2008)- Reconstructing the junction between Panthalassa and Tethys since the Early Cretaceous. In: J.E. Blevin et al. (eds.) Eastern Australasin basins symposium III, Energy security for the 21st century, Sydney, Petroleum Expl. Soc. Australia (PESA), Spec. Publ., p. 263-266.
(Series of reconstructions of now mostly vanished oceanic plates between Australia and Eurasia since 140 Ma)

Seton, M., R.D. Muller, S. Zahirovic, C. Gaina, T. Torsvik, G. Shephard, A. Talsma, M. Gurnis, M. Turner, S. Maus & M. Chandler (2012)- Global continental and ocean basin reconstructions since 200 Ma. Earth-Science Reviews 113, p. 212-270.
(Major review of ocean basins evolution, incl. Indian Ocean and Tethys)

Sevastjanova, I., R. Hall, M. Rittner, S.M.T.L. Paw, T.T. Naing, D.H. Alderton & G. Comfort (2015)- Myanmar and Asia united, Australia left behind long ago. Gondwana Research 32, p. 24-40.
(New data from heavy minerals and detrital zircon ages of Late Triassic Halobia-bearing Pane Chaung Fm turbidite sandstones of Chin Hills in E Indo-Burman Ranges of W Myanmar. Intercalated with ultramafic rocks. Sandstones derived from mix of metamorphic, sedimentary and contemporaneous volcanic rocks. Pre-Devonian ages of Myanmar ('W Burma') Triassic sands closely resemble Sibumasu and W Australia (incl. >2.6 Ga Archean zircons), but differ from Indochina. Significant Permian-Triassic zircon populations (peaks at ~240 and 260 Ma) in W Burma, but not present in NW Australia. This points to proximity of W Burma to SE Asia (tin granites, etc.) in Triassic, which is therefore not elusive Argo block, as suggested in some models)

Sewell, R.J., A. Carter & M. Rittner (2016)- Middle Jurassic collision of an exotic microcontinental fragment: Implications for magmatism across the Southeast China continental margin. Gondwana Research 38, p. 304-313.

(Major deformation event in Hong Kong between 164-161 Ma (M-L Jurassic) linked to collision of microcontinent along SE China continental margin. Accreted terrane zircon age spectra close affinities to sources along N Gondwana margin. Collision of exotic terrane and subduction rollback, hastened foundering of postulated flat slab beneath SE China, leading to widespread igneous event at 160 Ma)

Shahabpour, J. (2009)- Analagous tectonic evolution of the Tethyan and SE Asian regions. Iranian J. Science Techn., Trans. A, 33, A1, p. 57-64.

(Similar tectonic histories in W Tethys and SE Asia of microcontinents rifting off Gondwana in Devonian-Permian and collisions with Eurasia in Late Triassic, etc.)

Shao, W.Y., S.L. Chung, W.S. Chen, H.Y. Lee & L.W. Xie (2015)- Old continental zircons from a young oceanic arc, eastern Taiwan: implications for Luzon subduction initiation and Asian accretionary orogeny. Geology 43, 6, p. 479-482.

(Chimei igneous complex in Coastal Range of E Taiwan is N part of intra-oceanic Luzon arc that accreted onto Eurasian continental margin since ~5 Ma. Magmatic zircons with mean Pb/U age of ~9 Ma probably of emplacement age. Inherited older zircons with ages clustering at ~14 Ma, ~218 Ma (largest peak) and older ages of ~726, ~1863 and ~2522 Ma suggest Cathaysia-type sources, attributed to continental fragment that split off Eurasian margin by opening of S China Sea, then drifted and accreted to W Philippine Sea plate before Luzon subduction initiation. Shows importance of ribbon continents in Asian orogenesis)

Shaw, R.D. (1997)- Some implications of Eurasian and Indo-Australian plate collision on the petroleum potential of Tertiary intracratonic basins of Southeast Asia. In: J.V.C. Howes & R.A. Noble (eds.) Proc. Int. Conf. Petroleum Systems of SE Asia & Australia, Jakarta 1997, Indon. Petroleum Assoc. (IPA), p. 63-80.

(Extensive intra-cratonic rift system within intra-cratonic SE Asia, with >70 Tertiary basins from N Thailand across Gulf of Thailand, SE-wards to Natuna Ridge. It includes significant hydrocarbon provinces (Malay, W Natuna, Pattani, Phitsanulok) and represents transtension along major faults and suture zones. Most rift basins affected by subsequent Miocene and Pliocene transpressional deformation. Onset of rifting tied to Eocene start of India- Eurasia plates collision)

She, Z., C. Ma, Y. Wan, J. Zhang, M. Li, L. Chen, W. Xu, Y. Li, L. Ye & J. Gao (2012)- An Early Mesozoic transcontinental palaeoriver in South China: evidence from detrital zircon U-Pb geochronology and Hf isotopes. J. Geol. Soc., London, 169, p. 353-362.

(Late Triassic- E Jurassic fluvial sandstones from S China Craton basins with four similar detrital zircon age populations: 2.6-2.4 Ga, 2.0-1.7 Ga (with remarkable age peaks at ~1.85 Ga), 850-700 Ma and 480-210 Ma. Hf values between -22.5 and +3.6, suggest derivation from reworked Archaean crust and minor late Paleoproterozoic juvenile crustal additions. Correlate well with E Cathaysia Block (not Yangtze). Similarities in provenance of Triassic- Jurassic around S China Craton delineate E-W sediment belt from Korea to W China and ~2000km long W-draining transcontinental paleo-river feeding basins in Korea, S and W China)

Shen, S., S. Dongli & G.R. Shi (2003)- A biogeographically mixed late Guadalupian (late Middle Permian) brachiopod fauna from an exotic limestone block at Xiukang in Lhaze county, Tibet. J. Asian Earth Sci. 21, p. 1125-1137.

(Km-size late M Permian limestone blocks in Indus-Tsangbo suture, Tibet, may be from carbonate build-up or seamount on oceanic crust. Fauna transitional between warm-water Cathaysian and cold- temperate Gondwanan faunas. Timorites ammonoid present, largely cool bi-temperate genus, occurring in W Timor, Japan, Tibet, Iran and W Texas. W Timor assigned to transitional Cathaysian- Gondwanan Cimmerian realm in M Permian (Shi and Archbold, 1995))

Shen, S.Z. & G.R. Shi (2000)- Wuchiapingian (early Lopingian, Permian) global brachiopod palaeobiogeography: a quantitative approach. Palaeogeogr. Palaeoclim. Palaeoecology 162, 3-4, p. 299-318.

(Late Permian brachiopods five marine biotic province: Cathaysian (tropical), W Tethyan (tropical), Himalayan (warm temperate), Austrazean (cold temperate) and Greenland-Svalbard (cold temperate). Also Cimmerian biogeographical region from Middle East through Afghanistan and Himalayas SE to Shan-Thai terrane and Timor, typified by mix of genera of both Cathaysian and Gondwanan affinities)

Shen, S.Z. & G.R. Shi (2004)- Capitanian (Late Guadalupian, Permian) global brachiopod palaeobiogeography and latitudinal diversity pattern. Palaeogeogr. Palaeoclim. Palaeoecology 208, p. 235-262.
(*Six paleogeographic provinces based on M Permian brachiopods: (A) Greenland-Svalbard (Arctic region), (B) Grandian (W North America), (D) Cathaysian (Paleotethys and Mesotethys), (F) Austrazean (E Australia- New Zealand), and two transitional zones (C) Sino-Mongolian-Japanese (N temperate zone) and (E) Himalayan (S temperate zone) Province. West Timor Aileu-Maubisse assemblages grouped with Lhasa, Chitichun and Zhongba assemblages of S Tibet and Salt Range (Pakistan) in 'Himalayan Province'*)

Shen, S.Z., G.R. Shi & N.W. Archbold (2003)- A Wuchiapingian (Late Permian) brachiopod fauna from an exotic block in the Indus-Tsangpo suture zone, southern Tibet, and its palaeobiogeographical and tectonic implications. Palaeontology 56, 2, p. 225-256.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/1475-4983.00296/pdf)
(Late Permian (Wuchiapingian) brachiopod fauna from exotic reddish crinoidal limestone block in Indus-Tsangpo suture zone in S Tibet (= suture between Eurasian/Lhasa Block and Indian Plate). Comparable with faunas in Salt Range of Pakistan, Chitichun Lst in S Tibet and Basleo area of W Timor (incl. 'antitropical' peri-Gondwanan species Stenoscisma purdoni and S. timorense, etc.). Fauna mixed peri-Gondwanan and Cathaysian character, possibly seamount biota originally from S margin of Neotethys in Late Permian, displaced and sandwiched into younger marine deposits in Cenozoic India- Eurasia collision)

Shen, S.Z., G.R. Shi & Z.J. Fang (2002)- Permian brachiopods from the Baoshan and Simao Blocks in Western Yunnan, China. J. Asian Earth Sci. 20, 6, p. 665-682.
(Four Permian brachiopod assemblages from W Yunnan, SW China. Faunas from Baoshan Block dominated by species characteristic of Cathaysian Province with some links with Peri-Gondwanan faunas. Simao Block characterised exclusively by taxa of Cathaysian Province)

Shen, S.Z., H. Zhang, Q.H. Shang & W.Z. Li (2006)- Permian stratigraphy and correlation of Northeast China: a review. J. Asian Earth Sci. 26, p. 304-326.
(Review of Permian successions and fossils in NE China. Dominated by brachiopods, fusulinids and land plants, with limited ammonoids, conodonts and bivalves. Guadalupian (M Permian) in Manchuride, Altaid and Yanbian Belts with bi-temperate Roadian- E Wordian Monodiexodina fauna and late Wordian- Capitanian Codonofusiella- Schwagerina or Neoschwagerina-Yabeina faunas)

Shen, S.Z., H. Zhang, G.R. Shi, W.Z. Li, J.F. Xie, L. Mu & J.X. Fan (2013)- Early Permian (Cisuralian) global brachiopod palaeobiogeography. Gondwana Research 24, p. 104-124.
(Three palaeolatitude-related brachiopod paleobiogeographic realms in E Permian. Six provinces distinguished in Asselian: Faunas from Gondwana not well differentiated at province level and form Indoralian province. From Sakmarian large transition zone (S Transitional Zone) between Paleoequatorial and Gondwanan Realms formed, with Austrazean province(E Australia- New Zealand) in E margin of Gondwanaland, contemporaneous with peak of Late Paleozoic Ice (Sakmarian Eurydesma- Bandoproductus-Cimmeriella assemblage, followed by Stereochia, Kasetia, Dyschrestia and Spiriferella faunas). Large Cathaysian province stretching from S China, Iran in W Palaeotethys to Mongolian continent in N)

Sheng, J.Z. & Y.G. Jin (1994)- Correlation of Permian deposits in China. Palaeoworld 4, p. 14-113.

Shi, G.R. (1998)- Aspects of Permian marine biogeography: a review on nomenclature and evolutionary patterns, with particular reference to the Asian- Western Pacific region. In: Y. Jin. et al. (eds.) Permian stratigraphy, environments and resources 2, Palaeoworld 9, p. 97-112.

Shi, G.R. (2001)- Possible influence of Gondwanan glaciation on low-latitude carbonate sedimentation and trans-equatorial faunal migration: the Lower Permian of South China. In: IGCP Project No. 411 on the Geodynamic Processes of Gondwanaland-derived Terranes in Eastern Asia, Geosciences J. 5, 1, p. 57-63.
(Early Permian from S China Block with mixed Cathaysian and cold-water Gondwanan brachiopod taxa, widespread rosettes of calcite prisms ('Chrysanthemum stones') and lack of significant reef buildups, suggesting cold water influence in paleo-equatorial S China in E Permian (ample paleomag data for equatorial setting). Possibly upwelling of cold water along W coast of S China terrane during E Permian)

Shi, G.R. & N.W. Archbold (1995)- Permian brachiopod faunal sequences of the Shan-Thai terrane: biostratigraphy, palaeobiogeographical affinities and plate tectonic/palaeoclimatic implications. J. Southeast Asian Earth Sci. 11, p. 177-187.
(Five Permian brachiopod assemblages known from Shan-Thai terrane: Late Asselian-Tastubian cool-water fauna, three 'transitional' faunas of Sterlitamakian, Baigendzhinian- E Kungurian and Kazanian-Midian ages, and Late Permian (Dorashamian) warm-water Cathaysian fauna. Shan-Thai belonged to Indoralian Province of Gondwanan Realm in Asselian-Tastubian and was incorporated into Cathaysian Province in latest Permian)

Shi, G.R. & N.W. Archbold (1995)- A quantitative analysis on the distribution of Baigendzhinian- Early Kungurian (Early Permian) brachiopod faunas in the western Pacific region. J. Southeast Asian Earth Sci. 11, 3, p. 189-205.
(Cluster analysis of distribution of 222 species of E Permian brachiopods from 25 localities across E Asia-Australia suggest 6 bioprovinces. In SE Asia two provinces (both sub-provinces of Cimmerian terranes): (1) Group B, Shan-Tai/ Sumatra/ W Papua Birds Head (warm temperate to S-subtropical; with Stereochia-Stictozoster) and (2) Group C, Himalayan/ Lhasa/ Timor (S-temperate; with Reedoconcha, Callytharella; also fusulinid Monodiexodina). Notable conclusions: Timor (Maubisse) was southern extension of Lhasa terrane, W Thailand most similar to Birds Head, Sumatra Jambi and Padang faunas similar and grouped with Shan Tai)

Shi, G.R. & N.W. Archbold (1995)- Palaeobiogeography of Kazanian-Midian (Late Permian) western Pacific brachiopod faunas. J. Southeast Asian Earth Sci. 12, p. 129-141.
(*W Timor transitional Cimmerian province between Cathaysian and Gondwanan Realms in M Permian)*

Shi, G.R. & N.W. Archbold (1998)- Permian marine biogeography of SE Asia. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publ., Leiden, p. 57-72.
(Three main Permian biotic provinces in SE Asia: Cathaysian (Simao, Indo-China, E Malaya), Sibumasu (Shan-Tai, Tengchong, Baoshan, W Malaysia, NE Sumatra; until Late Midian when joined Cathaysian province) and short-lived Sakmarian-Asselian Indoralian province)

Shi, G.R., N.W. Archbold & M. Grover (eds.) (1998)- Strzelecki International Symposium on Permian of Eastern Tethys: biostratigraphy, palaeogeography and resources. Proc. Royal Soc. Victoria 110, p. 1-480.

Shi, G.R., N.W. Archbold & L.P. Zhan (1995)- Distribution and characteristics of mixed (transitional) mid-Permian (Late Artinskian-Ufimian) marine faunas in Asia and their palaeogeographical implications. Palaeogeogr. Palaeoclim. Palaeoecology 114, p. 241-271.
(Asia Permian marine biogeography 3 realms: Boreal, Tethyan and Gondwanan. In early E Permian sharp biogeographical boundaries, due to Gondwanan glaciation. In M Permian two transition zones with mixed faunas: (1) North (N China, Japan, etc.), with warm Cathaysian and temperate Boreal genera, (2) South (Arabia, Iran, Shan-Tai, Timor, W Irian Jaya, etc.) with both Gondwanan and Cathaysian elements. Both transition zones have anti-tropically distributed genera like Monodiexodina, Lytvolasma and Spiriferella and are succeeded by Late Permian tropical Tethyan faunas. Timor brachiopods from Sakmarian Maubisse Fm similar to W. Australia, Bitauni late E Permian assemblage mixed Gondwana-Tethyan elements, Late Permian Basleo fauna is 'Tethyan' subtropical-tropical)

Shi, G.R., Z.Q. Chen & L.P. Zhan (2005)- Early Carboniferous brachiopod faunas from the Baoshan Block, west Yunnan, southwest China. Alcheringa 29, 1, p. 31-85.

(38 brachiopod species from Yudong Fm in W Yunnan. Associated coral and conodont faunas suggest late Tournaisian (E Carboniferous) age, possibility extending into earlyVisean)

Shi, G.R., Z.J. Fang & N.W. Archbold (1996)- An Early Permian brachiopod fauna of Gondwana affinity from the Baoshan block, westernYunnan, China. Alcheringa 20, 81-101.
(E Permian brachiopod fauna from U Dingjiazhai Fm, 30km S of Baoshan, W Yunnan. Dominated by Stenoscisma and Elivina yunnanensis n.sp.. Strong links with faunas from Bisnain assemblage of Timor and Callytharra Fm of W Australia. Late Sakmarian age suggested)

Shi, G.R. & T.A. Grunt (2000)- Permian Gondwana-Boreal antitropicality with special reference to brachiopod faunas. Palaeogeogr. Palaeoclim. Palaeoecology 155, p. 239-263.
(Permian marine antitropicality (genera from Boreal and Gondwanan Realms but absent in Paleoequatorial Realm) reported from most marine pelagic or benthic invertebrate groups, suggesting biotic interchanges between Gondwanan and Boreal Realms. Possible migration pathways and mechanisms reviewed: 'stepping-stone' migration via islands in E Paleotethys, migration along W coast of Paleotethys, etc.)

Shi, G.R. & S.Z. Shen (2001)- A biogeographically mixed, middle Permian brachiopod fauna from the Baoshan Block, Western Yunnan, China. Palaeontology 44, p. 237-258.
(Baoshan Block (= part of Sibumasu complex; JTvG) M Permian brachiopod assemblage with Cryptospirifer in from lower Shazipo Fm. Associated with fusulinids Nankinella, Polydiexodina spp. and Schwagerina. Overlying U Shazipo Fm 500-700m carbonate contains Shanita- Hemigordiopsis foram assemblage. Paleogeographical distribution of Cryptospirifer overlaps with slightly younger (Capitanian-Wuchiapingian) Shanita-Hemigordius (Hemigordiopsis) foram fauna, also endemic or largely confined to M Permian transitional faunas of Cimmerian region (Baoshan Block))

Shi, G.R. & J.B. Waterhouse (1990)- Sakmarian (Early Permian) brachiopod biogeography and constraints on the timing of terane rifting, drift and amalgamation in SE Asia, with reference to the nature of Permian óTethysô. Pacific Rim 90 Congress, p. 271-276.

Shi, G.R., J.B. Waterhouse & S. McLoughlin (2010)- The Lopingian of Australasia: a review of biostratigraphy, correlations, palaeogeography and palaeobiogeography. Geological Journal 45, 2-3, p. 230-263.
(Distribution of Lopingian (Late Permian) strata and biota in Australia, New Zealand, Timor and New Caledonia, with new paleogeographic reconstruction. In New Zealand Lopingian beds in several terranes, mainly representing displaced segments of volcanic arcs, fore-arc basins and accretionary complexes, originally located near NE Australia on convergent margin. Most non-marine successions in E Australia rich in coal. Marine Lopingian of W Australia and Timor dominated by carbonates with sparse siliciclastic sediments and volcanoclastics, accumulated in large basin on passive and rifted continental margin, sharing many shallow-marine invertebrate species with Himalayan region of Nepal, S Tibet and N India)

Shi, X., J. Kirby, C. Yu, A. Jimenez-Diaz & J. Zhao (2017)- Spatial variations in the effective elastic thickness of the lithosphere in Southeast Asia. Gondwana Research 42, p. 49-62.
(Maps of spatial variations of Effective elastic thickness for SE Asia from coherence of topography and Bouguer gravity anomaly data. Results suggest E Borneo may share similar crustal basement, and represent broad tectonic zone of destroyed Mesotethys Ocean extending from W-C Java, through E Borneo to N Borneo. Indosinian suture between Indochina and Sibumasu may extend further SE across Billiton to offshore SE Borneo, and Singapore platform and SW Borneo may belong to same block)

Shi, Y. & X. Jin (2015)- Is the West Burma block Gondwana- or Cathaysia-derived?- A Permian paleobiogeographic and regional geological reappraisal. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 97-99. *(Extended Abstract)*
(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf)
(W Burma block (= Mt Victoria Land), generally considered as small block of Gondwanan origin, but Barber and Crow (2009) suggested it could be extension of 'Cathaysian' W Sumatra block. W Burma two fusulinid

assemblages: (1) Pseudofusulina postkraffti and (2) Rugososchwagerina sp. and Parafusulina, which occur in Cathaysian region, but also in Gondwana-derived blocks Baoshan, Tengchong, etc.)

Shu, L., M. Faure, B. Wang, X. Zhou & B. Song (2008)- Late Palaeozoic-Early Mesozoic geological features of South China: response to the Indosinian collision events in Southeast Asia. Comptes Rendus Geoscience 340, 2, p. 151-165.
(Late Permian- E Triassic collision of S China- Indosinian blocks along Song Ma-Menglian suture closed Paleo-Tethys Ocean, caused folding and thrusting and granitic magmatism in S China Block (SCB). E and C parts of SCB SW-dipping paleoslope in Late Paleozoic-Early Mesozoic. Ophiolitic melanges of E SCB formed in Neoproterozoic, not Permian or Triassic (Neoproterozoic oceanic relics with Proterozoic acritarchs). M-U Triassic granitoids (235-205 Ma) belong to post-collision peraluminous S-type granites)

Shu, L.S., X.M. Zhou, P. Deng, B. Wang, S.Y. Jiang, J.H. Yu & X.X. Zhao (2009)- Mesozoic tectonic evolution of the Southeast China Block: new insights from basin analysis. J. Asian Earth Sci. 34, p. 376-391.
(On SE China Block two types of Mesozoic basins (1) Late Triassic- E Jurassic post-Indosinian orogenic basins and (2) M Jurassic- Cretaceous intracontinental extensional graben and half-graben basins. Modern basin and range framework was settled down in Cretaceous. In Late Triassic–Early Jurassic sediment source areas were to N and NE of outcrop region)

Silberling, N.J. (1985)- Biogeographic significance of the Upper Triassic bivalve *Monotis* in Circum-Pacific accreted terranes. In: D.G. Howell (ed.) Tectonostratigraphic terranes of the Circum-Pacific region, Circum-Pacific Council Energy and Mineral Resources, Houston, p. 63-70.
(Five biogeogeographic areas in Circum-Pacific region, based on Late Triassic thin-shelled bivalve Monotis. In SE Asia: Fauna C (Monotis subcircularis + Eomonotis + Entomonotis ochotica) in E Asia, Japan, W Borneo; Fauna E (Monotis salinaria) in Tethyan rocks of Alpine- Himalayan belt and Banda Sea region)

Silver, E.A. & R.B. Smith (1983)- Comparison of terrane accretion in modern Southeast Asia and the Mesozoic North American Cordillera. Geology 11, p. 198-202.
(Indo-Pacific region from Tonga Trench to E Indonesia proposed as analog with tectonic setting of North American Cordillera, which is also composed of numerous suspect terranes)

Simmons, N.A., S.C. Myers, G. Johannesson, E. Matzel & S.P. Grand (2015)- Evidence for long-lived subduction of an ancient tectonic plate beneath the southern Indian Ocean. Geophys. Res. Letters 42, 10.1002/2015GL066237, p. 1-9.
(New global tomographic image shows slab-like structure under S Indian Ocean, interpreted as ancient tectonic plate that sank into mantle along extensive intra-oceanic subduction zone that retreated SW across Tethys Ocean in Mesozoic. Jurassic-E Cretaceous oceanic volcanic arc system of Woyla terranes of W Sumatra may represent exposed remnant of this intra-oceanic system)

Simpson, G.G. (1977)- Too many lines; the limits of the Oriental and Australian zoogeographic regions. Proc. American Philosophical Soc. 121, p. 107-120.
(Discussion of boundary between Oriental/Asian and Australian zoogeographic regions (Wallace Line, Weber Line, Lydekker Line, etc.))

Smith, A.B. (1988)- Late Palaeozoic biogeography of East Asia and palaeontological constraints on plate tectonic reconstructions. Philosophical Trans. Royal Soc. London, A, 326, p. 189-227.
(Biogeographic patterns of Carboniferous- Permian rugose corals of E Asia. In Carboniferous Cathaysian region one cohesive block (N and S China, Tarim, Kunlun, Qiangtang teranes), lying tropically or subtropically, biotically isolated from C Asia. S boundary of Cathaysian region does not coincide with single suture, nor sharply defined: gradual faunal impoverishment S-ward across Tibetan Plateau, implying faunal ranges controlled by prevailing climate, not by geographical barrier ('Paleotethys'). Region formed part of Gondwanaland craton, extending into tropical latitudes until separation in late Lower Permian)

Socquet, A., C. Vigny, N. Chamot-Rooke, W. Simons, C. Rangin & B. Ambrosius (2006)- India and Sunda plates motion and deformation along their boundary in Myanmar determined by GPS. J. Geophysical Research 111, B05406, p. 1-11.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2005JB003877/epdf)
(New GPS India-Eurasia motion slower than previous determinations and predict India-Sunda relative motion of 35 mm/yr oriented N10° at latitude of Myanmar. Sagaing Fault only accommodates 18 mm/yr of right-lateral strike slip. Two models of how and where remaining deformation may occur)

Sone, M. & I. Metcalfe (2008)- Parallel Tethyan sutures and the Sukhothai Island-arc system in Thailand and beyond. In: Proc. Int. Symp. Geoscience Resources and Environments of Asian Terranes (GREAT 2008), 4th IGCP 516, and 5th APSEG Bangkok, p. 132-134.
(online at: www.geo.sc.chula.ac.th/Geology/Thai/News/Technique/GREAT_2008/PDF/039.pdf)
(Short version of paper below)

Sone, M. & I. Metcalfe (2008)- Parallel Tethyan sutures in mainland Southeast Asia: new insights for Palaeo-Tethys closure and implications for the Indosinian orogeny. Comptes Rendus Academie Sciences, Paris, Geoscience 340, 2, p. 166-179.
(Two parallel tectonic sutures in Yunnan-Thailand region: (1) Changning-Menglian and Inthanon= M Triassic closure of M Devonian- M Triassic Paleo-Tethys Ocean (collision of Sibumasu) and (2) Jinghong- Nan-Sra Kaeo= Late Permian collapse of local Permian back-arc basin. Sukhothai Zone not part of Sibumasu Terrane, but part of Permian island-arc on W margin of Indochina Terrane)

Sone, M. & I. Metcalfe (2010)- Stratigraphic correlation between the Sukhothai island arc in Thailand and the East Malaya Terrane in Peninsular Malaysia. In: Proc. 6th Symp. Int. Geol. Correl. Progr. Project 516, Geological Anatomy of East and South Asia, Kuala Lumpur, p. 55. *(Abstract only)*
(Permo-Triassic Sukhothai island arc system, situated between Indochina and Sibumasu continental terranes, extends S into East Malaya Terrane, with similar granitoids and Carboniferous- Triassic marine sediments. At W side Paleo-Tethys/ Raub-Bentong suture, at E side short-lived Permian back-arc basin. Late Permian marine shales with Cathaysian lyttonid brachiopods succeeded by latest Permian limestones)

Song, P., L. Ding, Z. Li, P.C. Lippert, T. Yang, X. Zhao, J. Fu & Y. Yue (2015)- Late Triassic paleolatitude of the Qiangtang block: implications for the closure of the Paleo-Tethys Ocean. Earth Planetary Sci. Letters 424, p. 69-83.
(U Triassic Jiapila Fm volcanics on N edge of Qiangtang block of C Tibet (34.1°N) dated to 204-213 Ma. Paleomagnetic data suggest Late Triassic latitude for block at 31.7 ± 3.0°N. Closure of Paleo-Tethys Ocean at longitude of Qiangtang block most likely in Late Triassic)

Song, P., L. Ding, Z. Li, P.C. Lippert & Y. Yue (2017)- An early bird from Gondwana: paleomagnetism of Lower Permian lavas from northern Qiangtang (Tibet) and the geography of the Paleo-Tethys. Earth Planetary Sci. Letters 475, p. 119-133.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X17304016)
(Paleomagnetic data from Lower Permian Kaixinling Gp lavas on N Qiangtang block suggest paleolatitude of 21.9 ±4.7 °S at ~297 Ma. Corroborates earlier hypothesis that N Qiangtang block rifted away from Gondwana before Permian, and accreted to Tarim- N China continent by Norian time. Total N-ward drift ~7000km over ~100 My (~7 cm/yr). N Qiangtang no Laurasian affinity. C Qiangtang metamorphic belt possible intra-Qiangtang suture that developed at S latitudes outboard of Gondwanan margin)

Srivastava, A.K. & D. Agnihotri (2010)- Dilemma of Late Palaeozoic mixed floras in Gondwana. Palaeogeogr. Palaeoclim. Palaeoecology 298, p. 54-69.
(Carboniferous and Permian plant assemblages of N and S hemispheres distributed in four floral provinces. Mixed M and U Permian Cathaysian- Gondwanan floras from margins of Paleo-Tethys, i.e. New Guinea, Tibet, Oman, etc. No clear explanation)

Srivastava, A.K., V.A. Krassilov & D. Agnihotri (2010)- Peltasperms in the Permian of India and their bearing on Gondwanaland reconstruction and climatic interpretation. Palaeogeogr. Palaeoclim. Palaeoecology 310, p. 393-399.
(First find of peltasperms in Permian of Gondwana, in Lower Permian Barakar Fm of Satpura Basin, C India, where they co-occur with diverse glossopterids. These are dominant group of N American- European arboreal vegetation and suggest floristic exchanges between Laurasia and Gondwana. Satpura occurrence assigns Indian subcontinent to low-latitude zone of mixed Laurasian/Gondwanan floristic assemblages)

Stait, B. & C. Burrett (1987)- Biogeography of Australian and Southeast Asian Ordovician nautiloids. In: G.D. McKenzie (ed.) Gondwana Six: stratigraphy, sedimentology and paleontology, American Geophys. Union (AGU), Geophys. Monograph 41, p. 21-28.
(E Ordovician faunas of SE Asia Sibumasu plate similar to those of Canning Basin, NW Australia)

Stampfli, G.M. (2000)- Tethyan Oceans. In: E. Bozkurt et al. (eds.) Tectonics and magmatism in Turkey and the surrounding area. Geol. Soc., London, Spec. Publ. 173, p. 1-23.
(Ordovician- Permian plate reconstructions of early Tethyan oceans (focused on W Tethys). Paleotethys opened in Ordovician-Silurian, with detachment of ribbon-like Hun Superterrane along Gondwana margin. Neotethys opened from Late Carboniferous- late E Permian from Australia- E Mediterranean, with drifting of Cimmerian superterrane and final closing of Paleotethys in M Triassic. N-ward subduction of Paleotethys triggered opening of back-arc oceans along Eurasian margin. Some closed during Eocimmerian collisional event, others stayed open and their delayed subduction induced opening of younger back-arc oceans (Black Sea, etc). Subduction of Neotethys mid-ocean ridge responsible for major change in Jurassic plate tectonics)

Stampfli, G.M. & G.D. Borel (2002)- A plate tectonic model for the Paleozoic and Mesozoic constrained by dynamic plate boundaries and restored synthetic oceanic isochrons. Earth Planetary Sci. Letters 196, p. 17-33.
(Ordovician- Cretaceous reconstructions of greater Tethyan realm)

Stampfli, G.M., C. Hochard, C. Verard, C. Wilhem & J. von Raumer (2013)- The formation of Pangea. Tectonophysics 593, p. 1-19.
(New Neoproterozoic- Triassic global reconstructions, with latest Neoproterozoic creation of Gondwana, Devonian opening of Paleotethys, Carboniferous Variscan orogeny along W Paleotethys and creation of Pangea super-continent. E of Spain Paleotethys remained open until Triassic, subducting N under Laurasia. Rollback of Paleotethyan slabbed caused Permian rifts/ backarc basins, some becoming oceanized in Triassic. End-Triassic breakup of Pangea and opening of Alpine- Tethys oceanic seaways))

Stauffer, P.H. (1974)- Malaya and Southeast Asia in the pattern of continental drift. Bull. Geol. Soc. Malaysia 7, p. 89-138.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1973026.pdf)
(Review of early plate tectonic models of SE Asia)

Stauffer, P.H. (1978)- Anatomy of the Australasian tektite strewnfield and the probable site of its crater. In: P. Nutalaya (ed.) Proc. 3rd Regional Conf. Geology and Mineral Resources of SE Asia (GEOSEA III), Bangkok, p. 285-289.
(Most likely location of Pleistocene impact crater that created large tektite fields is under Mekong River Delta. On Malay Peninsula in Gambang tinfield tektites at base of lower tin-bearing 'Old Alluvium'))

Stauffer, P.H. (1983)- Unravelling the mosaic of Paleozoic crustal blocks in Southeast Asia. Geol. Rundschau 72, 3, p. 1061-1080.
(Many parts of SE Asia have Paleozoic or older continental crust. Ophiolite belts indicate mosaic of different blocks. If Permian pebbly mudstones are glacial deposits much of SE Asia was attached to Gondwana and rifting-separation took place after Permian)

Stauffer, P.H. (1985)- Continental terranes in Southeast Asia: pieces of which puzzle ? In: D.G. Howell (ed.) Tectonostratigraphic terranes of the Circum-Pacific region, Circum-Pacific Council for Energy and Min. Res., Houston, Earth Sci. Ser. 1, p. 529-539.
(Continental crust under much of pre-Tertiary core of SE Asia. Late Paleozoic glacial marine deposits in W SE Asia indicate attachment to Gondwana in Permian)

Stauffer, P.H. & D.J. Gobbett (1972)- Southeast Asia a part of Gondwanaland? Nature 240, 102, p. 139-140.
(Brief discussion of Ridd (1971) and Tarling (1972) reconstructions)

Stauffer, P.H. & C.P. Lee (1986)- Late Paleozoic glacial marine facies in Southeast Asia and its implications. In: G.H. Teh & S. Paramananthan (eds.) Proc. 5th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA V), Kuala Lumpur 1984, 2, Bull. Geol. Soc. Malaysia 20, p. 363-397.
(Carbo-Permian glacial-marine pebbly mudstones in S. Thailand, Langkawi islands (Singa Fm) and other areas form 2000 km long belt from Sumatra to C Burma. This suggests W side of Western SE Asia was attached to Gondwanaland in Carbo-Permian, while warm-climate Permian floras on other blocks suggest separate drift histories)

Stauffer, P.H. & C.P. Lee (1987)- The Upper Palaeozoic pebbly mudstone facies of peninsular Thailand and western Malaysia- continental margin deposits of Palaeoeurasia- Discussion. Geol. Rundschau 76, p. 945-948.
(Discussion of Altermann (1986) paper. Disputes Altermann's conclusions that Paleozoic pebbly mudstones are not glacial deposits)

Stauffer, P.H. & N. Mantajit (1981)- Late Palaeozoic tilloids of Malaysia, Thailand and Burma. In: M.J. Hambrey & W.B. Harland (eds.) Earthôs Pre-Pleistocene glacial records. Cambridge University Press, p. 331-335.
(Brief review of Carboniferous- earliest Permian glacial deposits. Extend from southern Malay Peninsula through W Thailand (Phuket region), Myanmar, into SW China. Best known section is thick Singa Fm of Langkawi islands, NW Malaya. Most common clasts quartz sandstones, minor limestone, granite, trondhjemite. Generally overlain by late E- M Permian limestone (Chuping Lst in Malaya, Ratburi Lst in Thailand, Plateau Lst in E Myanmar))

Stephenson, M.H. & L. Angiolini (2006)- Relating the fossil record to deglaciation in the early Permian of Gondwana: development of a Gondwana-wide biotic deglaciation model. Permophiles 47, p. 18. *(Abstract)*
(Maximum rate of deglaciation around time of Granulatisporites confluens Oppel-zone in late Asselian-early Sakmarian time)

Stephenson M.H., L. Angiolini & M.J. Leng (2007)- The Early Permian fossil record of Gondwana and its relationship to deglaciation; a review. In: M. Williams et al. (eds.) Deep-time perspectives on climate change: marrying the signal from computer models and biological proxies, Geol. Soc.London, p. 169-189.
(Biotic criteria for E Permian deglaciation sequences in Gondwana. Marine cold-water bivalves Eurydesma and Deltopecten and brachiopods Lyonia and Trigonotreta in earliest post-glacial marine transgressions, replaced by more diverse, temperate fauna. Palynomorph succession changes from monosaccate pollen assemblages, associated with fern spores, to more diverse assemblages with common bisaccate pollen. Organic matter shows decreasing d13 C trend, believed to be due to post-glacial global warming. E Permian O isotopes show d18O decline in Asselian- Artinskian, likely due to melting of glaciers at high latitudes)

Stevens, C.H. (1985)- Reconstruction of Permian paleogeography based on distribution of Tethyan faunal elements. Proc. 9th Int. Congress of Carboniferous Stratigraphy and Geology, Washington 1979, 5, p. 383-393.

Stevens, G.R. (1963)- Faunal realms in Jurassic and Cretaceous belemnites. Geol. Magazine 100, 6, p. 481-497.
(Three faunal realms recognized for Jurassic and Cretaceous belemnites. Boreal and Tethyan realms for Jurassic ammonites, but no equivalent for Pacific. They apparently are divided, partly in the Boreal and partly in the Indo-Pacific. Boundary between Boreal and Tethyan realms was distinct and stable, boundary between Tethyan and Indo-Pacific realms varied considerably in Upper Jurassic and Lower Cretaceous)

Stevens, G.R. (1977)- Mesozoic biogeography of the South-West Pacific and its relationship to plate tectonics. In: Int. Symposium Geodynamics in South-West Pacific, Noumea 1976, Technip, Paris, p. 309-326.

Stevens, G.R. (1980)- Southwest Pacific faunal palaeobiogeography in Mesozoic and Cenozoic times: a review. Palaeogeogr. Palaeoclim. Palaeoecology 31, p. 153-196.
(Review of faunal provinciality of SW Pacific (focus on New Zealand- New Caledonia). In late Middle- Late Jurassic region received repeated waves of benthic immigrants from Tethyan/Indo-Pacific region, etc.)

Stonely, R. (1974)- Evolution of the continental margins bounding a former southern Tethys. In: C.A. Burk & C.L. Drake (eds.) The geology of continental margins, Springer Verlag, New York, p. 889-903.
(Early interpretation of S part of Tethyan orogenic belt, from Mediterranean Sea to Indonesia)

Sun, Dong-Li (1993)- On the Permian biogeographic boundary between Gondwana and Eurasia in Tibet, China as the eastern section of the Tethys. Palaeogeogr. Palaeoclim. Palaeoecology 100, p. 59-77.
(Mainly on China terranes; no mention of Timor. Glossopteris flora, bivalve Eurydesma, rugose coral Lytvolasma, brachiopod Globiella and fusulinid Monodiexodina are cool climate flora/fauna, often occurring with tillites along N margin of Gondwanaland in E Permian. In late M Permian Gondwana Tethys became still warmer and warm tropical fauna of Neoschwagerina and Verbeekina replaced cool water one)

Talent, J.A. (1984)- Australian biogeography past and present: determinants and implications. In: J.J.Veevers (ed.) Phanerozoic Earth history of Australia, Oxford Monographs Geol. Geophysics 2, Clarendon Press, Oxford, p. 57-93.
(In Permian most of Australia in cold Gondwana realm (Glossopteris flora), but N edge intruded into warm Tethyan realm (Bonaparte Gulf, Timor, New Guinea; temporary extension of Cathaysian Gigantopteris flora into W New Guinea. Late Triassic mollusc fauna of Jimi River/PNG no species in common with contemporaneous faunas from Misool, Seram, Timor, suggesting some paleobiogeographic boundary between these, although all are supposedly in warm-water Tethyan realm)

Talent, J.A., R. Manson, J.C. Aitchison, R.T. Becker et al. (2000)- Devonian palaeobiogeography of Australia and adjoining regions. Mem. Assoc. Australian Palaeont. 23, p. 167-257.
(Summaries of Devonian fossil groups in Australia. No maps)

Tan, B.K. (1996)- ôSuture zonesô in peninsular Malaysia and Thailand: implications for palaeotectonic reconstruction of southeast Asia. J. Southeast Asian Earth Sci. 13, p. 243-249.
(Correlating geological belts/ suture zones from N Thailand to S Peninsular Malaysia very difficult)

Tan, D.N.K. (1983)- Cherts of Southeast Asia. In: A. Iijima et al. (eds.) Siliceous deposits in the Pacific Region, Developments in Sedimentology 36, Elsevier, p. 79-91.
(Lower Paleozoic chert confined to peninsular Thailand and NW and C Peninsular Malaysia. Upper Paleozoic chert in Thailand, Indochina, and Peninsular Malaysia, with isolated occurrence in W Sarawak. Triassic chert in N Thailand, N Peninsular Malaysia, Singapore, Sumatra, Bangka, Sarawak, and N Palawan. Jurassic-Cretaceous chert in SE and NE Kalimantan, S and W Sumatra, C Java, S Sulawesi, Natuna, Sarawak, Sabah and Philippines (but not Thailand, Indochina, and Peninsular Malaysia). Tertiary age chert or older blocks in Tertiary melange in Indonesia (Nias, Timor, Philippines, Sarawak and Sabah)

Tapponnier, P., R. Lacassin, P.H. Leloup, U. Schairer, Zhong D., Liu X., Ji S., Zhang L. & Zhong J. (1990)- The Ailao Shan/Red River metamorphic belt: Tertiary left-lateral shear between Indochina and South China. Nature 343, p. 431-437.
(Ductile shear in Ailao Shan/Diancang Shan metamorphic belt along Red River in Yunnan, S. China, with >500 km of mylonites with horizontal lineations on steep, NW-striking foliation planes, and left-lateral kinematic indicators. U-Pb radiometric ages of ~23 Myr imply strike-slip movement in earliestMiocene. Collision of India with Asia displaced Indochina at least 500km SE relative to S China)

Tapponnier, P., G. Peltzer, A.Y. LeDain & R. Armijo (1982)- Propagating extrusion tectonics in Asia: new insights from simple experiments with plasticine. Geology 10, p. 611-616.
(Interesting and popular, but disputed tectonic model explaining major strike slip zones and blocks rotations in SE Asia as results of India- Asia collision in Eocene)

Tapponnier, P., G. Peltzer & R. Armijo (1986)- On the mechanics of the collision between India and Asia. In: M.P. Coward & A.C. Ries (eds.) Collision tectonics, Geol. Soc., London, Spec. Publ. 19, p. 115-157.
(Extended and updated version of SE Asia extrusion model. Since Eocene large prograding zone of deformation migrated across Asia, concurrently with N-ward movement of India collision front. Several large left-lateral strike-slip faults activated. In first 20-30 Ma of collision process, India may have pushed sideways S part of Sundaland (incl. SW Borneo, Sumatra and Peninsular Malaysia) then all of Sundaland (incl. S Yunnan, Indochina, Thailand and Shan Plateau. Red River Fault may have taken up 800-1000 km of extrusion to SE. In Oligocene- E Miocene Sundaland would have rotated clockwise by ~20-25°)

Tarling, D.H. (1988)- Gondwanaland and the evolution of the Indian Ocean. In: M.G. Audley-Charles & A. Hallam (eds.) Gondwana and Tethys, Geol. Soc., London, Spec. Publ. 37, p. 61-77.

Teasdale, J. & J. Bon (2017)- A new plate model for South East Asia aimed at understanding basin evolution. In: SEAPEX Exploration Conference 2017, Singapore, Session 7, 15p. *(Abstract + Presentation)*
(Eight SE Asia plate reconstruction models from 55- 0 Ma. SW Borneo and Peninsular Malaysia part of same rigid Sundaland basement terrane. 'Rotational extrusion' of Sundaland caused clockwise rotation of Sundaland + Borneo in two phases in Late Eocene and Oligocene. Counter-clockwise rotation of Bird’s Head. E Indonesian ‘salami-slicer’ extends NW to Borneo, where it accounts for M Miocene Sabah Orogeny. Etc.)

Teichert, C. (1951)- The marine Permian faunas of Western Australia. Palaont. Zeitschrift 24, 1-2, p. 75-90.
(W Australian Permian faunas more in common with Tethys than with E Australia. Timor faunas appear related, but significant differences. One record of fusulinid foraminifera in Desert Basin could not be relocated and is probably erroneous. Low diversity coral fauna, mainly indigenous with Australian species. Crinoid faunas related to Timor, but much impoverished)

Teichert, C. (1974)- Marine sedimentary environments and their faunas in Gondwana area. In: Plate Tectonics- assessments and reassessments, AAPG Mem. 23, p. 361-394.
(Widespread Paleozoic-Mesozoic marine rocks in W Australia, S Africa Antarctica, etc., inconsistent with hypothesis of Gondwanaland (?))

Tingay, M., C. Morley, R. King, R. Hillis & D. Coblentz (2009)- Southeast Asian stress map: implications for petroleum exploration and production. First Break 27, p. 81-88.
(Overview of new SE Asian Stress Map, with stress information from borehole breakouts, drilling-induced fractures, and focal mechanism solutions across 14 provinces in SE Asia. Intraplate stress field of SE Asia (Sundaland) is variable and not aligned with absolute plate motion)

Tingay, M., C. Morley, R. King, R. Hillis, D. Coblentz & R. Hall (2010)- Present-day stress field of Southeast Asia. Tectonophysics 482, p. 92-104.
(Variable stress pattern throughout SE Asia largely inconsistent with Sunda plate ESE motion direction. Present-day maximum horizontal stress in Thailand, Vietnam and Malay Basin predominately N-S, consistent with radiating stress patterns from E Himalayan syntaxis. Maximum horizontal stress in Borneo primarily NW–SE; may reflect plate-boundary forces or topographic stresses exerted by C Borneo highlands. S and C Sumatra basins maximum horizontal stress NE–SW, perpendicular to Indo-Australian subduction front. Plate-scale stress field in SE Asia controlled by combination of Himalayan-related deformation, subduction forces (trench suction, collision) and intraplate sources of stress such as topography and basin geometry)

Tjia, H.D. (2008)- Tertiary stress regimes of western Southeast Asia. In: J.A. Katili et al. (eds.) Tectonics and resources of Central and SE Asia (Halbouty volume), Pusat Survei Geol., Bandung, Spec. Publ. 34, p. 125-138.

(In W SE Asia pre-Middle Miocene mainly extensional regimes. Changes in plate dynamics towards end E Miocene terminated spreading of S China Sea and Philippines basins and allowed impact of W-directed Pacific convergence. After short transition in Langhian (16.3-14.2 Ma) start of compressional regimes)

Tollman, A. & E. Kristan-Tollman (1985)- Paleogeography of the Tethys from the Paleozoic to the Mesozoic. In: K. Nakazawa & J.M. Dickens (eds.) The Tethys, her paleogeography and paleobiology, from the Paleozoic to the Mesozoic, Tokai University Press, Japan, p. 20-199.

Tong-Dzuy, T., H.F. Hou, T.H. Phuong, H.H. Nguyen et al. (1996)- Outlines of stratigraphy and remarks on paleobiography of Devonian in Southeast Asia. In: Proc. IGCP Symp. on Geology of SE Asia, Hanoi 1995, J. Geology, B, 1996, 7-8, p. 10-34.
(Review of Devonian stratigraphies and macrofaunas of of S China, Indochina W Malaysia. Lower Devonian in most places marine clastics, M Devonian mainly carbonates. Devonian faunas of SE Asa greater similarities with Europe than with Australia, questioning common wisdom that this region was derived from Gondwana)

Tong-Dzuy, T., P. Janvier & P. Ta Hoa (1996)- Fish suggest continental connections between South China and Indochina blocks in Middle Devonian times. Geology 24, 6, p. 571-574.
(Yunnanolepiform antiarch (placoderm fish) from Givetian Dong Tho Fm, C Vietnam, on Indochina Block, well S of Song Ma suture. Previously known only from Lower Devonian of South China block. Massive sandstones of Dong Tho Fm may be southern extension of Do Son Sst of Hai Phong area, S China)

Torsvik, T.H. & L.R.M. Cocks (2004)- Earth geography from 400 to 250 Ma: a palaeomagnetic, faunal and facies review. J. Geol. Soc., London 161, 4, p. 555-572.

Torsvik, T.H. & L.R.M. Cocks (2009)- The Lower Palaeozoic palaeogeographical evolution of the northeastern and eastern peri-Gondwanan margin from Turkey to New Zealand. In: M.G. Bassett (ed.) Early Palaeozoic peri-Gondwana terranes: new insights from tectonics and biogeography, Geol. Soc., London, Spec. Publ. 325, p. 3-21.
(Review of E Paleozoic of NE sector of Gondwanan and peri-Gondwanan margin from Turkey through Middle East, N Indian subcontinent, S China- SE Asia, to Australia and New Zealand. SE Australia enlarged through accretion of island arcs. Most of area represented passive margin. Paleotethys opened no earlier than Late Silurian. N China and others probably not attached to Gondwana in Lower Paleozoic. S China close to Gondwana, but not part of it, and Sibumasu probably part of Gondwana. New paleogeographical maps for Cambrian (500 Ma), Ordovician (480 Ma) and Silurian (425 Ma))

Torsvik, T.H. & L.R.M. Cocks (2013)- Gondwana from top to base in space and time. Gondwana Research 24, p. 999-1030.
(Review of evolution of Gondwana supercontinent, from unification of several cratons in Late Neoproterozoic, combination with Laurussia in Carboniferous to form Pangea, to progressive fragmentation in Mesozoic. New paleogeographic reconstructions from E Cambrian (540 Ma) to 200 Ma. Sibumasu microcontinent stretches from Burma and Yunnan to Sumatra (unlike earlier Cocks-Fortey papers, now accepted to have been part of E Gondwana craton adjacent to NW Australia, until opening of Neotethys Ocean in Permian)

Tozer, E.T. (1982)- Marine Triassic faunas of North America: their significance for assessing plate and terrane movements. Geol. Rundschau 71, 8, p. 1077-1104.
(Marine Triassic paleobiogeography. Norian 'Tethyan/ low paleolatitude' Monotis salinaria in Hallstatt facies of Timor, 'Pacific/ mid-high paleolatitude' Monotis ochotica in New Caledonia, New Zealand, etc.)

Truswell, E.M. (1981)- Pre-Cenozoic palynology and continental movements. In: M.W. McElhinny & D.A. Valencio (eds.) Paleoreconstruction of the continents, American Geophys. Union (AGU) Geodyn. Ser. 2, p. 13-25.

Truswell, E.M., P.A. Kershaw & I.R. Sluiter (1987)- The Australian-Malaysian connection: evidence from the paleobotanical record. In: T.C. Whitmore (ed.) Biogeographical evolution of the Malay Archipelago, Oxford Monographs Biogeography 4, Oxford University Press, p. 32-49.

Twidale, C.R. (2005)- Granitic terrains. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 123-141.
(Basic review of granitic rocks, weathering and distribution in Southeast Asia)

Ueno, K. (1999)- Gondwana/Tethys divide in East Asia: solution from Late Paleozoic foraminiferal paleobiogeography. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium on Shallow Tethys 5, Chiang Mai 1999, Dept. Geol. Science, Chiang Mai University, p. 45-54.

Ueno, K. (2000)- Permian fusulinacean faunas of the Sibumasu and Baoshan Blocks: implications for the paleogeographic reconstruction of the Cimmerian continent. Geosciences J. 4 (Spec. Ed.), p. 160-163.
(Expanded version see Ueno (2003) below)

Ueno, K. (2002)- Geotectonic linkage between West Yunnan and mainland Thailand: Toward the unified geotectonic evolution model of East Asia. In: Geodynamic Processes of Gondwanaland-derived terranes in East and Southeast Asia, their crustal evolution, emplacement and natural resources potential, Fourth Symp. IGCP Project 411, Phitsanulok, p. 35-42.

Ueno, K. (2003)- The Permian fusulinoidean faunas of the Sibumasu and Baoshan blocks: their implications for the paleogeographic and paleoclimatologic reconstruction of the Cimmerian Continent. Palaeogeogr. Palaeoclim. Palaeoecology 193, p. 1-24.
(Permian fusulinids in four levels in Baoshan and Sibumasu Blocks. East Cimmerian continent poor Tethyan neoschwagerinid and verbeekinid genera in M Permian. Increase in diversity from E to late M Permian (N-ward drift of Cimmerian continent) and from E to W (W Cimmerian closer to tropical Tethyan domain than E). M Permian Cimmerian two subregions: W= Tethyan Cimmerian and E= Gondwanan Cimmerian. Rare Tethyan fusulinids in Baoshan and Sibumasu blocks suggests E Cimmerian continent still far from Cathaysian domain and in warm temperate- subtropical zone until end-Permian. E Cimmerian block migrated into tropical zone by Late Triassic with Carnian sponge-coral buildups in Sibumasu Block)

Ueno, K. (2006)- The Permian antitropical fusulinoidean genus *Monodiexodina*: distribution, taxonomy, paleobiogeography and paleoecology. J. Asian Earth Sci. 26, p. 380-404.
(Review of 'subtropical', late E Permian fusulinid genus Monodiexodina from 33 areas, incl. several Timor occurrences, all in middle part of Maubisse Fm. Type species of Monodiexodina is Schwagerina wanneri Schubert 1915 first described from Timor. Monodiexodina-bearing areas can be restored to either N or S middle latitudes, suggesting genus is paleobiogeographically anti-tropical taxon. Generally found in monotypic, crowded manner in sandy sediments with uni-directionally aligned shells. Long-ranging 'mid-Permian', Artinskian- E Midian (=Capitanian))

Ueno, K. & K. Hisada (1999)- Closure of Paleo-Tethys caused by the collision of Indochina and Sibumasu. Chikyu Monthly 21, p. 832-839. *(in Japanese)*

Ueno, K., A. Miyahigashi & T. Charoentitirat (2010)- The Lopingian (Late Permian) of mid-oceanic carbonates in the Eastern Palaeotethys: stratigraphical outline and foraminiferal faunal succession. Geological Journal 45, p. 285-307.
(SW China Changning-Menglian Belt and N Thailand Inthanon Zone best-studied Paleotethys collisional belts in Asia. Thick E Carboniferous- Late Permian carbonate build-ups with basalt at base formed on top of oceanic seamounts. Foraminiferal faunas record shallow-marine domain in Paleotethys (Cathaysian Province) with high diversity fusulinids. Coeval Neotethyan domain also high diversity fusulinids. Lopingian Panthalassan mid-oceanic build-ups likely lower foraminiferal diversity than Paleo- and Neotethys)

Uhlig, V. (1911)- Die marinen Reiche des Jura und der Unterkreide. Mitteilungen Geol. Gesellschaft Wien, 4, 3, p. 389-448.
(online at: www2.uibk.ac.at/downloads/oegg/GG_004_329_448.pdf)
('The marine realms of the Jurassic and the Lower Cretaceous'. Subdivision of Jurassic- Cretaceous into 5 main faunal provinces. Includes review of Indonesian Mesozoic macrofossils known at that time, all classified in 'Himalayan Province', whch stretches from Tibet to Indonesia- New Guinea, possibly into New Zealand. Common deep-water faunas with Liassic dominated by Phylloceras, Dogger with Stephanoceras and, Macrocephalites)

Umbgrove, J.H.F. (1929)- Tertiary sea connections between Europe and the Indo-Pacific area. Proc. 4th Pan-Pacific Science Congress, Java 1929, 2A, p. 91-104.

Unesco (1972)- Geological map of Asia and the Far East 1:5M; Explanatory note, 2nd ed. Unesco, Paris, p. 1-100.

Uno, K., K. Furukawa & S. Hada (2011)- Margin-parallel translation in the western Pacific: paleomagnetic evidence from an allochthonous terrane in Japan. Earth Planetary Sci. Letters 303, 1-2, p. 153-161.
(Paleomagnetic study shows latitudinal translation of allochthonous Kurosegawa ribbon continent of Japan along W margin of Pacific Ocean. Terrane was at 4°N paleolatitude in Late Triassic, 18°N in E Cretaceous, then translated ~1500km N to present position, associated with sinistral strike-slip along E Asian continental margin, in Mid-Late Cretaceous. Also show SW Borneo plate in Equatorial position since Jurassic)

Uno, K., K. Hisada, K. Ueno, Y. Kamatad, H. Hara, M. Fujikawa et al. (2010)- Paleomagnetic evidence for latitudinal change of the Indochina Block during the Late Paleozoic to Mesozoic. In: C.P. Lee et al. (eds.) 6th Symp. Int. Geol. Correl. Progr. Project 516 (IGCP516), Geological anatomy of East and South Asia, Kuala Lumpur 2010, p. 26. *(Abstract only)*
(Paleomagnetic paleolatitude calculated for samples from around Loei, Thailand (17.6°N), suggest W Indochina Block was at 9°N or 9°S in E Permian and at 5°N or 5°S in Carboniferous. Two tectonic models conceivable. Most likely Indochina Block was near equator in Carboniferous and N-motion of block lasted through Permian)

Usuki, T., C.Y. Lan, K.L. Wang & H.Y. Chiu (2013)- Linking the Indochina block and Gondwana during the Early Paleozoic: evidence from U-Pb ages and Hf isotopes of detrital zircons. Tectonophysics 586, p. 145-159.
(Detrital zircons from river sediment in Truong Son Belt of Indochina block in N-C Vietnam with mainly Neoarchean (~2.5 Ga), Mesoproterozoic (1.7-1.4 Ga), Grenvillian (~0.95 Ga) and Pan-African (0.65–0.5 Ga) ages. Similarity of age distribution and Hf isotope compositions of Indochina and those of Tethyan Himalaya, W Cathaysia, and Qiangtang suggests Indochina was outboard of Qiangtang and S of S China in Indian margin of Gondwana in E Paleozoic. Results consistent with paleontological correlations of E Gondwana margin)

Van Balgooy, M.M.J. (1987)- A plant geographic analysis of Sulawesi. In: T.C. Whitmore (ed.) Biogeographical evolution of the Malay Archipelago, Clarendon Press, Oxford, p. 94-102.

Van der Meer, D.G., W. Spakman, D.J.J. van Hinsbergen, M.L. Amaru & T.H. Torsvik (2010)- Towards absolute plate motions constrained by lower-mantle slab remnants. Nature Geoscience 3, p. 36-40.
(Global mantle tomography model used to estimate longitude of past oceanic subduction zones. Identified 28 remnants of oceanic plates subducted into lower mantle and link these to mountain building zones from which they likely originated. Assuming remnants sank vertically through mantle, we reconstruct longitude at which they were subducted. No oceanic plate remnants from Carboniferous (~300-360 Ma))

Van der Meer, D.G., T.H. Torsvik, W. Spakman, D.J.J. van Hinsbergen & M.L. Amaru (2012)- Intra-Panthalassa Ocean subduction zones revealed by fossil arcs and mantle structure. Nature Geoscience 5, p. 215-219.
(Vast Panthalassa Ocean once surrounded supercontinent Pangaea, but subduction since then consumed most of ocean floor. Extinct intra-oceanic volcanic arcs accreted to N American and Asian continental margins. To constrain paleoposition of extinct arcs, they were correlated with remnants of subducted slabs identified in mantle from-wave tomographic models)

Van der Meer, D.G., D.J.J. van Hinsbergen & W. Spakman (2018)- Atlas of the underworld: slab remnants in the mantle, their sinking history, and a new outlook on lower mantle viscosity. Tectonophysics 723, p. 309-448.
(online at: www.sciencedirect.com/science/article/pii/S0040195117304055)
(Global inventory of 94 subducted slabs in mantle, as identified from tomography. Including slabs from SE Asia: Arafura, Banda, Burma (formerly part of Sunda slab), Halmahera (15-0 Ma), Kalimantan (active from ~70- 20 Ma: interpreted by some as deeper part of Sunda slab)), Papua (base age 90-45 Ma, top age 26-20 Ma), Sangihe (base age 30-25 Ma; at shallow upper mantle levels separated into several slabs: Philippine Trench slab, Molucca Sea West slab, Sulu and Celebes Sea South slab) and Sunda slab (active since 50-45 Ma). (see also associated website: www.atlas-of-the-underworld.org/)

Van Leeuwen, T.M. (2014)- The enigmatic Sundaland diamonds- a review. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Ann. Conv. Indon. Soc. Econ. Geol. (MGEI), Palembang, p. 181-204.
(Review of alluvial diamond occurrences with no obvious primary sources in Myanmar, Thailand and Sumatra ('Sibumasu diamonds'; spatially associated with Carboniferous-Permian glacial pebbly mudstones, stretching from Myanmar to Sumatra) and in 4 districts in Kalimantan ('Kalimantan diamonds'). Together they are referred herein as 'Sundaland diamonds'. Three possible scenarios for formation of Kalimantan diamonds)

Van Waterschoot Van der Gracht, W.A.J.M. (1928)- The problem of continental drift. In: Proc. Symposium Theory of continental drift; a symposium on the origin and movement of land masses, both inter-continental and intra-continental, as proposed by Alfred Wegener, New York 1926, American Assoc. Petrol. Geol. (AAPG), p. 1-75.
(Overview of merits of the then still controversial theory of continental drift. On p. 57 points out that Dutch geologists working in 'East Indies' (Molengraaf, Brouwer, Wing Easton) all supportive of Wegener's hypothesis, because New Guinea obviously rapidly drifted to North, and very rapid active uplift and subsidence can be observed in E Indonesia)

Van Welzen, P.C., J.A.N Parnell & J.W.F. Slik (2011)- Wallaceôs Line and plant distributions: two or three phytogeographical areas and where to group Java? Biol. J. Linnean Society 103, p. 531-545.
(online at: www.naturalscience.tcd.ie/assets/pdf/Wallace's%20line.pdf)
(No sharp E-W boundary in modern plant distributions in SE Asia. Three areas on basis of floristic affinities/ similarities (1) islands of Sunda Shelf, W Java (everwet Sundaland floristic group); (2) Wallacea, consisting of central islands and E Java, with two sub-areas: Java, the Philippines and Lesser Sunda Islands with more Oriental flora and Sulawesi and Moluccas with more Australian flora; (3) New Guinea/Sahul Shelf)

Van Welzen, P.C., J.W.F. Slik & J. Alahuhta (2005)- Plant distribution patterns and plate tectonics in Malesia. Biologische Skrifter Danske Vidensk. Selskab 55, p. 199-217.
(online at: http://phylodiversity.net/fslik/index_files/BiolSkr2005.pdf)
(Philippines, Borneo, and especially New Guinea comprise significantly more than average endemic plants. Three major distribution patterns in Malesia: Indian-Malesian, Circum-Pacific and Wallacea, the transition zone between Sunda and Sahul floras)

Veevers, J.J. (ed.) (2000)- Billion-year earth history of Australia and neighbours in Gondwanaland. GEMOC Press, Sydney, p. 1-388.

Veevers, J.J. (2004)- Gondwanaland from 650-500 Ma assembly through 320 Ma merger in Pangea to 185-100 Ma breakup: supercontinental tectonics via stratigraphy and radiometric dating. Earth-Science Reviews 68, p. 1-132.

Veevers, J.J. (2013)- Pangea: geochronological correlation of successive environmental and strati-tectonic phases in Europe and Australia. Earth-Science Reviews 127, p. 48-95.
(Supercontinent Pangea formed from Ouachita-Variscan oblique collision of Laurussia and Gondwanaland in Late Carboniferous (~320-300 Ma) (in European region). Shortening in C Australia, megakinking in Lachlan orogen and bending of oroclines in E. Australia possibly tied to this event (but 10,000 km away!). Followed by

Extensions I (~300 Ma, Carboniferous-Permian boundary; E Australia cut into long magmatic rift) and II (235 Ma, Carnian), expressed as rifts and sags that accumulated second set of coal-bearing strata)

Veevers, J.J. & C.M. Powell (eds.) (1994)- Permian-Triassic Pangean basins and foldbelts along the Panthalassan margin of Gondwanaland. Geol. Soc. America (GSA) Mem. 184, p. 1-368.

Veevers, J.J. & R.C. Tewari (1995)- Permian-Carboniferous and Permian-Triassic magmatism in the rift zone bordering the Tethyan margin of southern Pangea. Geology 23, p. 467-470.
(Magma emplaced in India-Australia rift zone along Tethyan margin in Permian-Carboniferous and Permian-Triassic times)

Veevers, J.J. & R.C. Tewari (1995)- Gondwana master basin of Peninsular India between Tethys and the interior of the Gondwanaland Province of Pangea Geol. Soc. America (GSA) Mem. 187, p. 1-73.
(Deposition in Gondwana master basin of Peninsular India in latest Carboniferous- E Jurassic on Archean-Proterozoic basement. Gondwana deposition ceased with breakup of Greater India from rest of Gondwanaland in Late Jurassic- E Cretaceous, followed by rift-drift succession along its margins. Master basin 1000km inboard of passive margin of Tethyan Gondwanaland; filled initially with lobes of glaciogenic sediment)

Von Hagke, C., M. Philippon, J.P. Avouac & M. Gurnis (2016)- Origin and time evolution of subduction polarity reversal from plate kinematics of Southeast Asia. Geology 44, 8, p. 659-662.
(online at: http://web.gps.caltech.edu/~avouac/publications/vonHagke-Geology-2016.pdf)
(Regional model of plate geometry and kinematics of SE Asia since Late Cretaceous and origin of subduction polarity reversal currently observed in Taiwan)

Von Koenigswald, G.H.R. (1960)- Tektite studies I: The age of the Indo-Australian tektites. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, B 63, p. 135-141.
(On the distribution of glassy tektites, widespread in M Pleistocene of SE Asia and Australia, and derived from meteorite impact somewhere in Indochina. (Age ~0.8 Ma; JTvG). In Sangiran, C Java, tektites in Upper Kabuh Fm?)

Von Koenigswald, G.H.R. (1960)- Tektite studies II: The distribution of the Indo-Australian tektites. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, B 63, p. 142-153.
(Stauffer 1983: First paper to point out distribution of Australasian tektites in terms of size and shape from NW (Indochina) to SE (Australia), an observation crucial to later understanding of origin of these bodies)

Von Koenigswald, G.H.R. (1964)- The problem of tektites. Space Science Rev. 3, 3, p. 433-445.
(Early significant review of tektites, including Pleistocene Australasian strewn field and their extra-terrestrial impact origin)

Von Koenigswald, G.H.R. (1968)- Tektite studies X: The relationship of shape, size and texture in Asiatic tektites. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, B 71, p. 1-9.

Wang, S., Y. Mob, C. Wang & P. Yea (2016)- Paleotethyan evolution of the Indochina Block as deduced from granites in northern Laos. Gondwana Research 38, p. 183-196.
(online at: www.sciencedirect.com/science/article/pii/S1342937X15002890)
(Jinsha River- Song Ma Suture- Kontum Massif suture is boundary between Indochina Block and S China Block. Granitoids from N Laos I-type Indosinian volcanic arc granites of 234-256 Ma age (~M Triassic))

Wallace, A.R. (1869)- The Malay Archipelago. MacMillan & Co, UK, p. 1-525.
(With several reprint editions. Classic work of natural history/ faunal provinces of Indonesia (not much on geology))

Wang, P. (2004)- Cenozoic deformation and the history of sea-land interactions in Asia. In: P. Clift et al. (eds.) Continent-ocean interactions within East Asian marginal seas, American Geophys. Union (AGU), Geophys.

Monograph Ser. 149, p. 1-22.
(After India-Asia collision in Eocene, Asia significantly enlarged its size and increased its altitude. W-tilting topography of E Asia reversed with uplift of Tibetan Plateau and opening of marginal seas, resulting in Asian fluvial system radiating from uplifted center of continent. Cenozoic deformation of Asia also responsible for initiation of Asian monsoon system in E Miocene and further strengthening at ~8 Ma and ~3 Ma)

Wang, W., Q.M. Qu & M. Zhu (2010)- A brief review of the Middle Palaeozoic vertebrates from Southeast Asia. Palaeoworld 19, p. 27-36.
(On Silurian-Devonian fish remains from Shan-Thai (=Sibumasu), Indochina and S China blocks and their biogeographic affinities. Vertebrate fossils suggest proximity between S China and Indochina terranes in M Paleozoic and close relationship between Shan-Thai and E Gondwana (Australia) in M Devonian)

Wang, Q., J. Deng, C. Li, G. Li, L. Yu & L. Qiao (2016)- The boundary between the Simao and Yangtze blocks and their locations in Gondwana and Rodinia: Constraints from detrital and inherited zircons. Gondwana Research 26, p. 438-448.
(Simao (N Indochina) and Yangtze (S China) continental blocks amalgamated in Late Paleozoic- Triassic by closure of Paleotethys branch (Ailaoshan ocean). Detrital and inherited zircons suggest Laowangzhai-Mojiang suspect terrane belongs to Simao-Indochina block, so Paleotethys suture along Ailaoshan late-Devonian- E Carboniferous ophiolite belt. Precambrian detrital zircon ages suggest Yangtze block not part of Australia or India in Rodinia, while Simao-Indochina block derived from Indian Gondwana)

Wang, X., K. Makato & W. Hongzhen (1996)- On the tectonic position of the Baoshan region during the Late Palaeozoic. J. Southeast Asian Earth Sci. 13, p. 171-183.
(Devonian- Permian fauna of Baoshan block in Yunnan, SW China, very similar to S Tibet, but not Yangtze region. Faunal and paleomagnetic data for Late Paleozoic show Yangtze region very close to Equator, but Baoshan and S Tibet in middle latitudes (~32-43°S; probably in Gondwana domain))

Wang, X., I. Metcalfe, P. Jian, L. He & C. Wang (2000)- The Jinshajiang- Ailaoshan suture zone: tectono-stratigraphy, age and evolution. J. Asian Earth Sci. 18, p. 675-690.
(On M Triassic age for Jinshajiang- Ailaoshan suture, formed by collision of Changdu-Simao Block with S China Block. Jinshajiang oceanic lithosphere formed (as oceanic marginal basin of S China Block) in latest Devonian- earliest Carboniferous)

Wang, X., I. Metcalfe, P. Jian, L. He & C. Wang (2000)- The Jinshajiang suture zone: tectono-stratigraphic subdivision and revision of age. Science in China, ser. D, 43, 1, p. 10-22.
(Jinshajiang suture zone in W Yunnan- W Sichuan is remnants of backarc basin in E part of Paleo-Tethys. Basin started in Late Devonian, closed in E-M Triassic)

Wang, X.D, W. Lin, S.Z. Shen, P. Chaodumrong, G.R. Shi, X. Wang & Q.L. Wang (2013)- Early Permian rugose coral *Cyathaxonia* faunas from the Sibumasu Terrane (Southeast Asia) and the southern Sydney Basin (Southeast Australia): paleontology and paleobiogeography. Gondwana Research 24, 1, p. 185-191.
(Sibumasu Terrane rifted from Gondwana in E Permian. Small solitary rugose Cyathaxonia coral faunas in Lower Permian of Sibumasu in SE Asia and Sydney Basin, SE Australia, suggesting cool shallow marine conditions, while Cathaysian corals reflect location near Paleo-equator. M Permian corals in Sibumasu dominated by solitary and compound Waagenophyllidae ('Cathaysian'), but, some endemic taxa in Sibumasu Terrane during this time suggest it was still independent paleobiogeographical entity. Eleven coral species including 5 new taxa described. No Late Carboniferous corals known from Gondwanan terranes in SE Asia)

Wang, X.D., G.R. Shi & T. Sugiyama (2002)- Permian of West Yunnan, Southwest China: a biostratigraphic synthesis. J. Asian Earth Sci. 20, p. 647-656.
(Permian stratigraphic successions in Changning-Menglian Belt range from passive margin, active margin to oceanic basin and seamounts. Permo-Carboniferous carbonate faunas typical Cathaysian (common fusulinids, compound rugose corals). Permian of Tenchong and Baoshan blocks different: Baoshan Block Lower Permian mainly siliciclastic with cool-water faunas and possibly glaciogene diamictites, overlain by basalts and

volcaniclastics of probable rift origin, U Permian carbonates with mixed Cathaysian- Gondwanan faunas. Tengchong Block similar to Baoshan, but lacks volcanics)

Wang, X.D., G.R. Shi, T. Sugiyama & R.R. West (2003)- Late Palaeozoic corals of Tibet (Xizang) and West Yunnan, Southwest China: successions and palaeobiogeography. Palaeogeogr. Palaeoclim. Palaeoecology 191, 3, p. 385-397.
(On coral faunal provincialism on Carboniferous- Permian of Tibet- W Yunnan and Cimmerian terranes. Sakmarian-Artinskian Cyathaxonia fauna. In late E Permian development of Himalayan (N margin of Gondwana) and Cimmerian provinces (Lhasa- Qiantang, Tengchong, Baoshan, W Yunnan), with Roadian solitary corals, Wordian-Capitanian Waagenophyllidae and endemic Cimmerian taxa such as Thomasiphyllum and Wentzellophyllum persicum. Thomasiphyllum has distinctive paleogeographical distribution in M Permian of Cimmerian continents, also in W Sumatra, etc. Late Permian Himalayan fauna with small solitary corals only (Lytvolasma fauna) and Cathaysian with Ipciphyllum, Liangshanophyllum, etc.)

Wang, X.D. & T. Sugiyama (2002)- Permian coral faunas of the eastern Cimmerian continent and their biogeographical implications. J. Asian Earth Sci. 20, p. 589-597.
(Early Permian corals of E Cimmerian continent (= Sibumasu) of Peri-Gondwanan affinity with small solitary forms; different from Cathaysian area, where abundant large solitary and compound corals occur. In M Permian endemic Cimmerian- Cathaysian fauna of large solitary and massive Waagenophyllidae, with Cathaysian aspect. Late Permian corals all Cathaysian. Changes related to rifting of Cimmerian continent from Gondwanaland in late Early Permian and subsequent N-ward drift)

Wang, X.D., T. Sugiyama, K. Ueno, Y. Mizuno, Y. Li, W. Wang et al. (2000)- Carboniferous and Permian zoogeographical change of the Baoshan Block, SW China. Acta Palaeontologica Sinica 39, 4, p. 493-506.
(Carboniferous- Permian of Baoshan block three main sequences: (1) Lower Carboniferous carbonates (warm, diverse, and abundant 'Eurasian' faunas), (2) Lower Permian siliciclastics (cold, low diverse faunas; conodont Sweetognathus fauna at top; glacio-marine diamictites, Sakmarian- E Artinskian ;'peri-Gondwanan') (3)M Permian carbonates (warm water but low diverse fauna; 'marginal Cathaysian/Cimmerian'). Cimmerian blocks comparable in Carboniferous- E Permian. In M Permian E Cimmerian blocks (Sibumasu s.s, Baoshan, Tengchong) not far from palaeoequator, but further than W Cimmerian blocks (lack of Eopolydiexodina and Neoschwagerina fusulinids, corals Thomasiphyllum, Wentzellophyllumm)

Wang, X.D., K. Ueno, Y. Mizuno & T. Sugiyama (2001)- Late Paleozoic faunal, climatic, and geographic changes in the Baoshan block as a Gondwana-derived continental fragment in southwest China. Palaeogeogr. Palaeoclim. Palaeoecology 170, p. 197-218.
(Carboniferous-Permian of Boashan Block of W Yunnan 3 main sequences: (1) Lower Carboniferous carbonate (diverse warm-water 'Eurasian-affinity' faunas, incl. Cyathaxonia coral fauna), (2) Lower Permian Asselian-Sakmarian 'peri-Gondwanan' cold water siliciclastics with diamictites overlain by E Artinskian carbonate with low diversity fusulinids Pseudofusulina- Eoparafusulina, also Cyathaxonia coral fauna, and Artinskian rift basalts; (3) M Permian 'marginal Cathaysian/ Cimmerian' carbonates; warm water, but low diversity fusulinids incl. Eopolydiexodina, also Shanita and coral assemblage with Wentzellophyllum and of lower diversity than in Cathaysian regions. Upper Carboniferous absent)

Wang, X.D., Y.Q. Zhang & Wei Lin (2010)- Carboniferous-Permian rugose coral *Cyathaxonia* faunas in China. Science China, Earth Sciences, 53, 12, p. 1864-1872
(Cyathaxonia faunas of small solitary corals widely distributed in Carboniferous- Permian beds across China. 12 families and 40 genera recognized. Cyathaxonia faunas of Baoshan, W Yunnan and S Anhui, occur just below large dissepimented solitary and compound corals in continuous sequence, implying occurrence not strictly related to Gondwanan or peri-Gondwanan cold water environment, but may reflect by deeper water, mud-rich, quieter sedimentary environments)

Wang, Y., X. Xing, P.A. Cawood, S. Lai, X. Xia, W. Fan, H. Liu & F. Zhang (2013)- Petrogenesis of early Paleozoic peraluminous granite in the Sibumasu Block of SW Yunnan and diachronous accretionary orogenesis along the northern margin of Gondwana. Lithos 182-183, p. 67-85.

(SW Yunnan Shan-Tai terrane with E-M Ordovician granitoids with zircon ages of 492-460 Ma. S-type granites, representing S-ward continuation of E Paleozoic granitic belt of E Gondwana N margin)

Wang, Y., X. Qian, P.A. Cawood, H. Liu, Q. Feng, G. Zhao, Y. Zhang, H. He & P. Zhang (2018)- Closure of the East Paleotethyan Ocean and amalgamation of the Eastern Cimmerian and Southeast Asia continental fragments. Earth-Science Reviews, 36p. *(in press)*
(Review of geological features of Paleotethys suture zones, bounding continental fragments and magmatic, metamorphic and sedimentary records. Data from Changning-Menglian, Inthanon and Bentong-Raub suture zones argue for linkage with Longmu Co-Shuanghu suture zone in C Tibet and together constitute main E Paleotethys Ocean relict. E-ward subduction of ocean resulted in series of magmatic arc/ backarc basin/ continental fragments in SE Asia (from W to E: Lincang-Sukhothai-E Malaya arc, Jinghong-Nan-Sa Kaeo back-arc basin, Simao/ W Indochina fragment, Luang Prabang-Loei back-arc basin, S Indochina fragment, Wusu and Truong Son back-arc basins, N Indochina fragment, Jinshajiang-Ailaoshan-Song Ma branch/back-arc basin and S China Block. Assembly of these fragments resulted in Triassic (Indosinian) metamorphism and related tectonothermal event. Switch from subduction of main E Paleotethyan Ocean to collision of Sibumasu with Simao/Indochina at ~ 237 Ma. Timing of collision events along Jinshajiang-Ailaoshan-Song Ma suture generally ~ 10 Ma older than along Changning-Menglian, Inthanon and Bentong-Raub suture zones)

Wang, Y., L. Zhang, P.A. Cawood, L. Ma, W. Fan, A. Zhang, Y. Zhang & X. Bi (2014)- Eocene supra-subduction zone mafic magmatism in the Sibumasu Block of SW Yunnan: implications for Neotethyan subduction and India-Asia collision. Lithos 206-207, p. 384-399.
(Metabasic rocks in NW Yunnan crystallized at 50-55 Ma and metamorphosed at ~39 Ma. Results suggest that E Eocene magmatism in NW Yunnan represents E-ward continuation of the Gangdese magmatic belt and that Neotethyan subduction continued until ~50 Ma, followed by India-Asia collision. At least two E-dipping subduction zones in Neotethyan suprasubduction system before 55 Ma. Sudden decrease in convergence rate in E Eocene (55-50 Ma) stimulated rollback of downgoing slab and induced melting of mantle sources)

Wanless, H.R. & J.R. Cannon (1966)- Late Paleozoic glaciation. Earth-Science Reviews 1, 4, p. 247-286.
(Late Paleozoic glaciation reported from many localities on Gondwana, including India, Pakistan, Australia, etc. Nothing known from SE Asia yet)

Waterhouse, J.B. (1972)- The evolution, correlation, and paleogeographic significance of the Permian ammonoid family Cyclolobidae. Lethaia 5, 3, p. 251-270.
(Cyclolobidae of M Permian age. Waagenoceras- Timorites lineage inhabited paleotropical latitudes, and Timorites is found around rim of Pacific Ocean (both also found on Timor; JTvG))

Waterhouse, J.B. (1982)- An Early Permian cool-water fauna from pebbly mudstones in south Thailand. Geol. Magazine 119, 4, p. 337-354.
(E Permian (Asselian) small brachiopod fauna from E Permian pebbly mudstones- sandstones of Phuket Gp at Ko Muk and Ko Phi Phi islands, Andaman Sea. With Komukia, Cancrinelloides, Rhynchopora, Sulciplica, etc. At one locality associated with solitary coral Euryphyllum. Most genera found in temperate- high paleolatitudes, suggesting pebbly mudstones are cool water deposits, contemporaneous with Late Asselian Gondwana glacial deposits (=Phuket Gp is part of 'Sibumasu terrane'; JTvG))

Waterhouse, J.B. (1987)- Perceptions of the Permian Pacific- the Medusa hypothesis. In: E. Brennan (ed.) Proc. Pacific Rim Congress 1987, Gold Coast, Australasian Inst. of Mining and Metallurgy, Parkville, p. 607-614.

Waters, J.A. (1990)- The palaeobiogeography of the Blastoidea (Echinodermata). In: W.S. McKerrrow & C.R. Scotese (eds.) Palaeozoic palaeogeography and biogeography, Geol. Soc., London, Mem. 12, p. 339-352.
(Permian blastoids widespread but most diverse in SE Asia and Australia. Timor faunas Sakmarian-Asselian and Kazanian, and most diverse and abundant. Paleoecology and stratigraphy poorly understood. Some common species between Timor and Australia, but others conspicuously absent: Angioblastus, Deltoblastus not in Australia; Australoblastus not in Timor. Reasons for local endemism unclear. Kazanian Timor fauna is last successful blastoid community before going extinct)

Webby, B.D., I.G. Percival, G. Edgecombe, F. Vandenberg, R. Cooper, J. Pickett et al. (2000)- Ordovician biogeography of Australasia. In: J. Wright et al. (eds.) Palaeobiogeography of Australasian faunas and floras, Assoc. Australian Palaeont., Mem. 23, p. 63-126.

Webster, G.D. (1998)- Palaeobiogeography of Tethys Permian crinoids. In: G.R. Shi, N.W. Archbold & M. Grover (eds.) Strzelecki Int. Symposium on Permian of Eastern Tethys: biostratigraphy, palaeogeography and resources, Proc. Royal Soc. Victoria 110, 1-2, p. 289-308.
(No Permian crinoid fauna in world as diverse and abundant as Timor. Five horizons between Sakmarian-Wuchiapingian. Australian faunas generally considered as cooler water faunas, >35°S. Timor warm-water shelf. In Artinskian greater similarity beween W Australia and Timor than between W and E Australia)

Westermann, G.E.G. (1980)- Ammonite biochronology and biogeography of the circum-Pacific Middle Jurassic. In: M.R. House & J.R. Senior (eds.) The Ammonoidea, Academic Press, London, p. 459-498.

Westermann, G.E.G. (1988)- Middle Jurassic ammonite biogeography supports ambi-Tethyan origin of Tibet. In: M.G. Audley-Charles & A. Hallam (eds.) Gondwana and Tethys, Geol. Soc., London, Spec. Publ. 37, p. 235-239.
(M Jurassic ammonites from Tibet Tethyan Himalaya (Spiti Shale) typical of SE margin of Tethys, with connections to W India, E Africa, NW Australasia. N Tibet (Qamdo) and S Tibet (Lhasa) consistent with Eurasian position in M Jurassic. Tithonian ammonoid affinities of Tethyan Himalaya very close to NW Australia, which Uhlig (1911) correctly included in Himalayan province)

Westermann, G.E.G. (ed.) (1993)- The Jurassic of the Circum-Pacific. Cambridge University Press, p. 1-688.
(Collection of 27 papers on Jurassic geology, floras, faunas and biogeography of circum-Pacific region, incl. Sukamto & Westermann on Indonesia/ PNG and Sato on SE Asia and Japan)

Westermann, G.E.G. (1993)- Global bio-events in mid-Jurassic ammonites controlled by seaways. In: M.R. House (ed.) The Ammonoidea: environment, ecology and evolutionary change. Systematics Association Spec. Vol. 47, Oxford Science Publ., p. 187-226.

Westermann, G.E.G. (2000)- Marine faunal realms of the Mesozoic: review and revision under the new guidelines for biogeographic classification and nomenclature. Palaeogeogr. Palaeoclim. Palaeoecology 163, p. 49-68.
(Review of published Mesozoic marine realms subrealms and superrealms and problems in defining them. Most important superrealms: (1) Boreal/Euroboreal (Arctic and Boreal-Atlantic) and (2) Tethys-Panthalassa (Tethyan, Mediterran-Caucasian, Indo-Pacific (Jurassic-E Cretaceous) and Austral (M-Late Cretaceous))

Whitmore, T.C. (ed.) (1981)- Wallace's Line and place tectonics. Clarendon Press, Oxford, p. 1-90.
(Collection of papers on relation between present-day faunal provinces and plate tectonic history of Indonesia, incl. Audley Charles paper on plate tectonics)

Whitmore, T.C. (ed.) (1987)- Biogeographical evolution of the Malay Archipelago. Oxford Monographs Biogeography 4, Clarendon Press, Oxford, p. 1-145.

Wilson, K.M., M.J. Rosol & W.W. Hay (1989)- Global Mesozoic reconstructions using revised continental data and terrane histories: a progress report. In: J.W. Hillhouse (ed.) Deep structure and past kinematics of accreted terranes, American Geophys. Union (AGU) Geophys. Monograph Series 50, p. 1-39.
(online at: www.agu.org/books/gm/v050/GM050p0001/GM050p0001.pdf)
(Series of interesting M Triassic- E Cretaceous global plate reconstructions, largely driven by faunal records)

Wnuk, C. (1996)- The development of floristic provinciality during the Middle and Late Paleozoic. Review Palaeobotany Palynology 90, p. 5-40.

(On evolution of floristic provinces since Silurian. Three main phytogeographic units in earliest fossil floras (Angara, Euramerica, Gondwana). Fourth unit (Cathaysia) differentiated from Euramerica in latest Carboniferous. Includes mention of New Guinea Gondwanan flora. Nothing on Sumatra or other SE Asia)

Wood, G.D., M.A. Miller, D.T. Pocknall, A.M. Aleman, J.A. Stein & R. Dino (1998)- Paleoclimatologic, paleoecologic and biostratigraphic significance of the Middle Cretaceous elaterate microfloral province, Gondwana. In: AAPG Int. Conf. Exhib., Abstracts, American Assoc. Petrol. Geol. (AAPG) Bull. 82, 10, p. 1982. *(Abstract only)*
(One of best defined Cretaceous phytogeographic realms is Albian-Cenomanian elaterate microfloral province, bracketing Cretaceous paleo-equator, in tropical-subtropical Africa- S America and outliers in China, Middle East and PNG. Typified by elater bearing pollen Elaterocolpites, Elateroplicites, Elateropollenites, etc. Parent plants inhabited paleotropical humid coastal plains of Proto-South Atlantic and Tethys oceans)

Wopfner, H. (1996)- Gondwana origin of the Baoshan and Tengchong terranes of West Yunnan. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geol. Soc. London, Spec. Publ. 106, p. 539-547.
(Baoshan and Tengchong Blocks in W Yunnan, China, have Permo-Carboniferous glaciomarine deposits, cold-water faunas and Glossopteris flora, indicating Gondwana position at that time and part of Sibumasu tectono-stratigraphic unit. Glacial series of Baoshan Block rel. thin and overlain by thick basalts and red beds (volcanic rift setting?). Tengchong Block glacial marine beds >1000 m, followed by thick Lower Permian reefal limestones (passive margin?). Both terranes separated from Australian Gondwana in late E Permian. Docking started in Late Triassic, with closure of Changning-Menglian Belt)

Wopfner, H. (1999)- The Early Permian deglaciation event between East Africa and Northwestern Australia. J. African Earth Sci. 29, p. 77-90.
(Late Paleozoic glacigene deposits form base of Gondwana megasequence along entire length of Tethyan margin of Gondwana. Examples of deglaciation sequences, including Tanzania, S Oman, Lesser Himalaya, NW Australia and SW China. All deglaciation sequences Late Asselian- E Sakmarian age. High content of organic matter in deglaciation deposits, like Late Asselian-E Sakmarian Treachery Shale of Australian NW Shelf with microflora of Pseudoreticulatispora (= Granulatisporites) confluens. Peak sea level in Late Sakmarian- E Artinskians. Swift and synchronuous climatic amelioration reflect rapid and substantial global warming)

Wopfner, H. (2001)- Gondwana terranes of southwest China and their connections to India and Australia. J. Indian Assoc. Sedimentologists 20, p. 1-19.
(Two groups of terranes with Late Carboniferous-E Permian glacial deposts that separated from Gondwana in Permian (together also referred to Sibumasu Blocks?; JTvG): (1) LBS (Lhasa Block, Tibet and Baoshan, W Yunnan) and Shan Thai (E Burma) which evolved in volcanic rift setting with margin of Greater India and NW Australia, and separated from Gondwana in Artinskian; (2) TMS (Tengchong Block, peninsular Thailand, W Malay Peninsula and N Sumatra), developed on peri-continental non-volcanic rift along N margin of Australia and pre-Permian New Guinea and separated slightly earlier than LBS)

Wopfner, H. & X.C. Jin (2009)- Pangea megasequences of Tethyan Gondwana-margin reflect global changes of climate and tectonism in Late Palaeozoic and Early Triassic times- a review. Palaeoworld 18, p. 169-192.
(Late Carboniferous- M Triassic 'Pangea stage' similar trends across Gondwana. Late Carboniferous- E Permian glacial- periglacial deposits followed by deglaciation in E Sakmarian, with typical facies with coal measures and redbeds. In E Permian, large graben structures started to develop between Africa and India and between India and Australia. Rifting along Tethyan margin started in E Permian, associated with volcanism between Kashmir and Yunnan and in NW Australia. Spreading of Neo-Tethys lead to separation of Cimmerian Blocks from Gondwana in late E Permian- Triassic. Two facies realms (1) intracratonic rift (Cashmere, Lhasa, Baoshan blocks) and (2) detached more distal blocks (Tengchong, Malaya, Sumatra))

Wright, A.J., G.C. Young, J.A. Talent & J.R. Laurie (eds.) (2000)- Palaeobiogeography of Australasian faunas and floras. Assoc. Australasian Palaeontologists, Mem. 23, p. 1-515.
(Collection of 10 papers describing Australasian floras-faunas and paleobiogeography from Cambrian-Quaternary (not including Triassic; JTvG))

Wu, G.Y. & B.L. Cong (1995)- Tethyan evolution and SE Asian continental accretion. In: Proc. Int. Symp. Geology of Southeast Asia and adjacent areas, Hanoi 1995, J. of Geol. Hanoi, B, 1995, 5-6, p. 293-301.

Wu, H.R., C.A. Boulter, B.J. Ke, D.A.V. Stow & Z.C. Wang (1995)- The Changning-Menglian suture zone; a segment of the major Cathaysian-Gondwana divide in Southeast Asia. Tectonophysics 242, p. 267-280.
(Changning-Menglian suture zone of W Yunnan, SW China, is major Cathaysia- Gondwana divide, representing closing of Paleo-Tethys Ocean. Narrow N-S zone of E Devonian- M Permian oceanic siliceous sediments and dismembered ophiolite complexes, including reef-capped oceanic islands. Simao terrane is E of suture, has Cathaysian affinities and not part of Sibumasu terrane as suggested by various authors. Subduction created active continental margin on W edge of Simao terrane throughout much of Triassic;until closure of this branch of Paleotethys in early Late Triassic)

Wu, J. & J. Suppe (2017)- Proto-South China Sea plate tectonics using subducted slab constraints from tomography. J. Earth Science (China), p. 1-15. *(in press)*
(online at: https://link.springer.com/article/10.1007/s12583-017-0813-x)
(Reconstruction of vanished Proto-South China Sea ocean from tomography imaging of subducted slab. Two slabs identified, now at depths of 750-900 km. Proto-South China Sea consumed by double-sided subduction: (1) 'N Proto-South China Sea' (now under N S China Sea- Philippines) subducted in Oligo-Miocene under Dangerous Grounds southward, expanding S China Sea by in-place 'self subduction' similar to W Mediterranean basins; (2) limited S-ward subduction of proto-S China Sea under Borneo before Oligocene (35 Ma), represented by 800-900 km deep 'S Proto-South China Sea' slab (now under S S China Sea- N Borneo))

Wu, J., J. Suppe & R.V.S. Kanda (2012)- Constraints on the extrusion of SE Asia from subducted slabs of the Indian, Australian, Philippine Sea and Molucca Sea plates. EGU General Assembly, Vienna 2012, p. 10019 *(Abstract only)*
(Subducted slabs under SE Asia mapped from seismic tomography and seismicity, when unfolded and restored, show incompatibilities with existing plate-tectonic models. Philippine Sea, Molucca Sea, and Celebes Sea plates are fragments of once much larger NE Indian-Australian Ocean, once continuous with Sunda slab and present Indian Ocean)

Wu, J., J. Suppe, R. Lu & R. Kanda (2016)- Philippine Sea and East Asian plate tectonics since 52 Ma constrained by new subducted slab reconstruction methods. J. Geophysical Research, Solid Earth, 121, 6, p. 4670-4741.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2016JB012923/epdf)
(Reconstructed Philippine Sea and E Asian plate tectonics since E Eocene from 28 slabs mapped from global tomography, with subducted area of ~25% of present-day global oceanic lithosphere. Slab constraints include subducted parts of existing Pacific, Indian and Philippine Sea oceans, plus subducted proto-S China Sea and newly discovered 8000 × 2500 km 'East Asian Sea' between Pacific and Indian Oceans at 52 Ma based on lower mantle flat slabs. Philippine Sea formed above Manus plume near Pacific- E Asian Sea plate boundary. Philippine Sea W-ward motion and post-40 Ma max. 80° CW rotation accompanied late Eocene-Oligocene collision with Caroline/Pacific plate. Philippine Sea moved N post-25 Ma over northern East Asian Sea, forming N Philippine Sea arc that collided with SW Japan-Ryukyu margin in Miocene (~20-14 Ma))

Xia, Y., X. Xu, Y. Niu & L. Liu (2017)- Neoproterozoic amalgamation between Yangtze and Cathaysia blocks: The magmatism in various tectonic settings and continent-arc-continent collision. Precambrian Research 309, p. 56-87.
(manuscript online at: http://dro.dur.ac.uk/21242/1/21242.pdf)
(Neoproterozoic amalgamation history of Yangtze and Cathaysia blocks, forming S China Block: (1) ~1000-860 Ma NW-ward intra-oceanic subduction and SE-ward ocean-continent subduction (with continental margin magmatism in Cathaysia Block); (2) ~860-825 Ma steepening subduction caused development of back-arc basin in intra-oceanic arc zone and slab rollback induced arc and back-arc magmatism in Cathaysia Block. NW-ward ocean-continent subduction formed continental margin magmatism in Yangtze Block; (3) ~825-805 Ma

continent-arc-continent collision and final amalgamation between Yangtze and Cathaysia blocks (Jiangnan Orogen); (4) ~805-750 Ma collapse of Jiangnan Orogen and Nanhua rift basin formed)

Xu, C., H. Shi, C.G. Barnes & Z. Zhou (2016)-Tracing a late Mesozoic magmatic arc along the Southeast Asian margin from the granitoids drilled from the northern South China Sea. Int. Geology Review 58, p. 71-94.
(Granitoids drilled in N S China Sea two magmatic episodes: Late Jurassic (162-148 Ma) and E Cretaceous (137-102 Ma). Jurassic magmatism probably began in late M Jurassic, documented by inherited zircons. I-type granites, generated in continental arc environment. Arc granites of SCS, with accretionary wedge of Palawan terrane to SE and zone of lithospheric extension to N throughout SE China, define late Mesozoic SW-NE trench-arc-backarc setting for SE Asian continental margin , related to subduction of Paleo-Pacific slab beneath Asia)

Xu, C., L. Zhang, H. Shi, M.R. Brix, H. Huhma, L. Chen, M. Zhang & Z. Zhou (2017)- Tracing an Early Jurassic magmatic arc from South to East China Seas. Tectonics 36, 3, p. 466-492.
(E Jurassic granite and diorite in wells in NE S China Sea and SW East China Sea (198-187 Ma), probably part of arc-related granitoids,that, along with those from SE Taiwan, could define E Jurassic NE-SW trending Dongsha-Talun-Yandang magmatic arc zone along East Asian continental margin paired with Jurassic accretionary complexes from SW Japan, E Taiwan to W Philippines. Arc-subduction complex associated with oblique subduction of Paleo-Pacific slab beneath Eurasia)

Xu, J., Z. Ben-Avraham, T. Kelty & H.S. Yu (2014)- Origin of marginal basins of the NW Pacific and their plate tectonic reconstructions. Earth-Science Reviews 130, p. 154-196.
(Basins of Bohai Gulf, S China Sea, E China Sea, Japan Sea, Andaman Sea, Okhotsk Sea and Bering Sea typical geometry of dextral pull-apart. Java, Makassar, Celebes and Sulu Seas basins together with grabens in Borneo also dextral, transform-margin type basin system. Formation of gigantic linked dextral pull-apart basin system in NW Pacific due to NNE- to ENE-ward motion of E Eurasia, mainly response to Indo-Asia collision which started at ~50 Ma)

Xu, Y., P.A. Cawood, Y. Du, L. Hu, W. Yu, Y. Zhu & W. Li (2013)- Linking south China to northern Australia and India on the margin of Gondwana: Constraints from detrital zircon U-Pb and Hf isotopes in Cambrian strata. Tectonics 32, 6, p. 1547-1558.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/tect.20099/epdf)
(Cambrian sedimentary rocks in S part of S China Craton derived from source to S or SE, beyond current limits of craton. U-Pb ages and Hf isotope data on detrital zircons from Cambrian two age peaks at 1120 Ma and 960 Ma, with εHf(t) values similar to coeval detrital zircons from W Australia and Tethyan Himalaya zone, respectively. ~1120 Ma detrital zircons likely derived from Wilkes-Albany-Fraser belt (between SW Australia-Antarctica); ~960 Ma zircons possibly sourced from Rayner-Eastern Ghats belt (between India-Antarctica). Suggesting S China was at nexus between India, Antarctica, and Australia along N margin of E Gondwana)

Xu, Y., P.A. Cawood, Y.S. Du, H. Huang, & X. Wang (2014)- Early Paleozoic orogenesis along Gondwana's northern margin constrained by provenance data from South China. Tectonophysics 636, p. 40-51.
(Cambrian- Ordovician boundary unconformity in S part of S China Craton related to coeval orogenic activity along Indian margin of E Gondwana. Disconformity at base Ordovician part of regional break also documented in Himalaya, Qiangtang, Lhasa, Sibumasu and W Australia, with angular unconformity, metamorphism of older units and widespread magmatic activity. S China Craton also deformed and metamorphosed during mid-Paleozoic intra-continental Kwangsian orogeny, with regional angular unconformity between Devonian cover and metamorphosed pre-Devonian along with granite intrusion between 460-400 Ma)

Xu, Y., Z. Yang, Y.B. Tong, H. Wang, L. Gao & C. An (2015)- Further paleomagnetic results for lower Permian basalts of the Baoshan Terrane, southwestern China, and paleogeographic implications. J. Asian Earth Sci., 104, p. 99-114.
(Baoshan Terrane of SW China part of Cimmerian block in Late Paleozoic. Paleomagnetic studies on lower Permian Woniusi Fm basalts suggest Baoshan Terrane located at latitude 38°S ± 3.7° in late E Permian. Comparison with E Permian from Gondwanan blocks suggests Baoshan Terrane located near junction of N

India and NW Australia, and broke away from W Australia after E Permian. Basalts represent extensional setting and may represent start of separation between Baoshan and Gondwana)

Yamashita, I., A. Surinkum, Y. Wada, M. Fujihara, M. Yokoyama, H. Zaman & Y. Otofuji (2011)- Paleomagnetism of the Middle-Late Jurassic to Cretaceous red beds from the Peninsular Thailand: implications for collision tectonics. J. Asian Earth Sci. 40, 3, p. 784-796.
(Paleomagnetic data of Jurassic- Cretaceous red sandstones from Peninsular Thailand suggests two opposite tectonic rotations in Trang area. As part of Thai-Malay Peninsula underwent CW rotation after Jurassic together with Shan-Thai and Indochina blocks. Between Late Cretaceous and M Miocene, as part of S Sundaland Block (incl. Peninsular Malaysia, Borneo and S Sulawesi), up to 24.5° ± 11° CCW rotation relative to S China Block. N boundary of CCW rotated zone between Trang area and Khorat Basin)

Yan, J.X. & H. Yin (2000)- Paleoclimatic constraints for early Permian paleogeography of Eastern Tethys. In: H. Yin et al. (eds.) Permian-Triassic evolution of Tethys and Western Circum-Pacific, Developments in Palaeontology and Stratigraphy 18, Elsevier, p. 1-15.
(Paleoclimate indicators used to distinguish major Asian blocks. Early Permian cooler climate areas with diamictites and Glossopteris flora, warm climates have fusulinid limestones, Gigantopteris floras, etc.. Suggest N-ward movement in Permian of blocks like Sibumasu from S Hemisphere Gondwana to N Hemisphere Asia)

Yan, J.X. & D. Zhao (2001)- Advancement of the Mesotethys along the northern margin of the South China Sea. Marine Geol. Quaternary Geology, Beijing, 21, 4, p. 49-54.
(In Chinese. Marine Mesozoic strata along N margin of S China Sea indicate marine basin. Basin was a large ocean in Mesozoic and can be traced W-ward to Mesotethys (Meratus suture of Kalimantan, and Woyla suture on Sumatra), E-ward ocean connected to extinct ocean in Sakawa zone of Japan through Taiwan Straits. Ocean closed around M Cretaceous, resulting from docking of N Palawan Terrane and Reed Bank terrane)

Yan, J.X. & K. Zhao (2001)- Permo-Triassic paleogeographic, paleoclimatic and paleoceanographic evolutions in eastern Tethys and their coupling. Sci. China, Ser. D, 44, p. 968-978.
(Permian and Triassic (Chihsian, Wujiapingian, Anisian and Norian) reconstructions and paleogeography of E Tethys area, mainly driven by paleoclimate records)

Yan, Q.S. & X.F. Shi (2007)- Hainan mantle plume and the formation and evolution of the South China Sea. Geol. J. Chinese Universities 13, 2, p. 311-322.
(Seismic tomographic images suggest possible mantle plume beneath and around Hainan island (sub-vertical low-velocity column, extending from shallow depths to 660-km seismic discontinuity and continuously to depth of 1900 km. Large quantity of Cenozoic alkali basalts distributed in S China Sea and adjacent areas)

Yan, Q., X. Shi, I. Metcalfe, S. Liu, T. Xu, N. Kornkanitnan, T. Sirichaiseth, L. Yuan, Y. Zhang & H.Zhang (2018)- Hainan mantle plume produced late Cenozoic basaltic rocks in Thailand, Southeast Asia. Nature Scientific Reports 8, 2640, p. 1-14.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5805767/pdf/41598_2018_Article_20712.pdf)
(Intraplate volcanism started after 16 Ma, shortly after cessation of seafoor spreading in S China Sea, affecting large areas. Geochemistry of Late Miocene- Pleistocene basalts from Khorat Plateau and Sukhothai arc terrane in Thailand show Oceanic Island Basalt -like characteristics. Post-spreading intra-plate volcanism around S China Sea region probably induced by Hainan mantle plume)

Yan, Q., Z. Wang, S. Liu, Q. Li, H. Zhang, T. Wang et al. (2005)- Opening of the Tethys in southwest China and its significance to the breakup of East Gondwanaland in late Paleozoic: evidence from SHRIMP U-Pb zircon analyses for the Garze ophiolite block. Chinese Science Bull. 20, 3, p. 256-264.
(U-Pb zircon analyses of gabbro from Garze ophiolite block from Garze-Litang melange mean age 292±4 Ma, suggesting earliest Permian age for sea floor spreading/ age of opening of Tethys at East Gondwanaland)

Yang, J., P.A. Cawood & Y. Du (2015)- Voluminous silicic eruptions during late Permian Emeishan igneous province and link to climate cooling. Earth Planetary Sci. Letters 432, p.166-175.

(Case study for ~260 Ma Emeishan Large Igneous Province in S China, where silicic volcanic rocks are minor component of preserved rock due to extensive Late Permian erosion. Silicic volcanic rocks ~30% of volume of eroded Emeishan volcanics. Basalt-derived silicic eruptions released sulfur gases into higher atmosphere, contributing to climate cooling at Capitanian-Wuchiapingian transition at ~260 Ma)

Yang, J., P.A. Cawood, Y. Du, H. Huang & L. Hu (2014)- A sedimentary archive of tectonic switching from Emeishan plume to Indosinian orogenic sources in SW China. J. Geol. Soc., London, 171, 2, p. 269-280.
(U Permian- M Triassic sediments in Youjiang Basin, S China, record change from Late Permian within-plate mafic-dominated source to NW (zircons ages ~260 Ma; mainly from Emeishan Large Igneous Province), to E-M Triassic mixed magmatic arc-recycled orogenic source to W (subduction–collision rocks of Indosinian Orogeny) and E (recycled Precambrian- E Paleozoic rocks in S China hinterland))

Yang, K. (1998)- A plate reconstruction of the Eastern Tethyan orogen in Southwestern China. In: M.F.J. Flower et al. (eds.) Mantle dynamics and plate interactions in East Asia, American Geophys. Union (AGU) Geodyn. Ser. 27, p. 269-287.
(E Tethyan orogenic belt in SW China includes S Tibet, N Tibet, Baoshan-Shan-Thai, Changdu-Simao-Indochina and Zhongza terranes between India and Yangtze continental plates, separated by sutures with dismembered ophiolites and arc volcanic belts, recording series of closed Carboniferous- Tertiary Tethyan ocean basins. Lancangjiang suture records Permo-Carboniferous Tethyan ocean, separating Gondwanaland and Eurasia. Two phases (1) Carboniferous-Triassic spreading of Lancangjiang, Jinshajiang and Garze-Litang oceans and breakup of Changdu-Simao-Indochina and Zhongza terranes from S margin of Eurasia; (2) Triassic-Tertiary spreading of Nujiang and Yarlung Zangpo oceans associated with breakup of S Tibet, N Tibet and Baoshan-Shan-Thai terranes from N Gondwanaland)

Yang, Z. & J. Besse (1993)- Paleomagnetic study of Permian and Mesozoic sedimentary rocks from Northern Thailand supports the extrusion model for Indochina. Earth Planetary Sci. Letters 117, p. 525-552.
(Paleomagnetic study of Jurassic- Cretaceous sediments on Khorat Plateau suggests 1500 ± 800 km of post-M Cretaceous left-lateral slip along Red River and Xian Shui He fault zones and 14 ± 7° CW rotation for Indochina block relative to S China block, in agreement with lateral extrusion model of Indochina during India-Asia collision. Additional data of Permian, U Triassic and Lw Jurassic suggest Indochina, Yunnan (S China), N China block and S China block probably in contact at least since Late Triassic)

Yang, Z., J. Besse, V. Sutheetorn, J.P. Bassoullet, H. Fontaine & E. Buffetaut (1995)- Lower-Middle Jurassic paleomagnetic data from the Mae Sot area (Thailand): paleogeographic evolution and deformation history of Southeastern Asia. Earth Planetary Sci. Letters 136, p. 325-341.
(Paleomagnetic study of E-M Jurassic limestones and sandstones from Mae Sot area, W Thailand (part of Shan-Thai-Malay).Mae Sot paleolatitude show STM was close to or had already accreted with Simao or Khorat blocks in E-M Jurassic (in Late Triassic). Relative S-ward motion of 8 ± 4° of Indochina and CW rotations (14-75°) relative to China)

Yap, S. (2002)- On the distributional patterns of Southeast-East Asian freshwater fish and their history. J. Biogeography 29, 9, p. 1187-1199.
(Present-day fresh water fish distributions classified into 19 biogeographical zones/ main river systems Sundaic islands grouped into four pairs: Malay Peninsula- N Sumatra, C Sumatra-W Borneo, N Borneo-E Borneo-Sarawak and S Borneo-Java. Java is relatively small, but landbridge island connected it with large islands of Sumatra and Borneo during Pleistocene low sea level periods)

Yeh, M.W. & J.G. Shellnutt (2016)- The initial break-up of Pangaea elicited by Late Paleozoic deglaciation. Nature Scient. Reports 6, 31442, p. 1-9.
(online at: www.ncbi.nlm.nih.gov/pmc/articles/PMC4980595/pdf/srep31442.pdf)
(Rifting of Pangea began in E Permian along S Tethys margin and produced lenticular-shaped Cimmeria continent. Mantle-plume model explained rift-related volcanism but Cimmerian rifts do not correlate well with pre-existing suture zones. Location and timing of Cimmerian rifting resulted from exploitation of structural heterogeneities within crust that formed due to repeated glacial-interglacial cycles in Late Paleozoic. Effects of

continental deglaciation helped to create shape of Cimmeria and Neotethys Ocean, suggesting climate change may influence location of rifting)

Yin, An (2010)- Cenozoic tectonic evolution of Asia: a preliminary synthesis. Tectonophysics 488, p. 293-325.
(Cenozoic tectonic evolution model of Asia, including lateral extrusion of SE Asia between 32- 17 Ma after India- Asia collision)

Yin, Hongfu (1997)- Triassic biostratigraphy and palaeobiogeography of East Asia. In: J.M. Dickins (ed.) Late Palaeozoic and Early Mesozoic Circum-Pacific events and their global correlation, Cambridge University Press, p. 168-185.
(Timor Triassic classified as 'Gondwanan Tethys' facies, similar to Lhasa- W. Birma?; different from 'India-Gondwana' and 'Cathaysian-Tethys'. Misolia is element of subtropical 'Gondwanan Tethys'. Gondwanan Tethys and Tropical Tethys merged in Late Triassic due to S-ward expansion of tropical-subtropical biota)

Yin, Hongfu, J.M. Dickins, G.R. Shi & J. Tong (eds.) (2000)- Permian-Triassic evolution of Tethys and Western Circum-Pacific. Developments in Palaeontology and Stratigraphy 18, Elsevier, 412p.
(Reviews of Permian-Triassic in mainland E Asia, New Zealand, etc.. Little on Indonesia, New Guinea)

Yin, Hongfu & Y. Peng (2000)- The Triassic of China and its interregional correlation. In: H. Yin et al. (eds.) Permian-Triassic evolution of Tethys and Western Circum-Pacific, Developments in Palaeontology and Stratigraphy 18, Elsevier, p. 197-220.
(Review of Triassic stratigraphy of China. Six regions, incl. NW Pacific (marine), tropical Cathaysian Tethys and warm-temperate Gondwanan Tethys (Himalayas and SE extension into Yunnan-Tengchong area)

Yin, Hongfu, S.D. Wu, Y. Du, J. Yan & Y. Peng (1999)- South China as a part of archipelagic Tethys during Pangea time. Proc. Int. Conf. on Pangea and the Paleozoic- Mesozoic transition, Wuhan 1999, p. 69-73.
(South China composed of several microplates in Late Paleozoic, at time when Eastern Tethys was an 'archipelagic Ocean' with numerous microplates that amalgamated into Paleoasia during Late triassic Indosinian orogeny)

Yin, Hongfu, K. Zhang & Q. Feng (1999)- The Archipelagic Ocean system of the Eastern Eurasian Tethys. Acta Geologica Sinica (English Edition) 78, 1, p. 230-236.
(Unlike typical oceans such as wide and 'clean' Atlantic, Tethys Ocean showed archipelagic pattern during all stages, especially E Tethys. Evolutionary history of Qinling-Qilian-Kunlun, S China and Xizang (Tibet) - Yunnan regions)

Yin, J. (2003)- Oxfordian (Jurassic) mayaitid (ammonite) dispersal in the Tibetan Himalaya as the first signal of the establishment of the Indo-Austral subrealm. Progress in Natural Science 13, 4, p. 282-287.
(Mid-Oxfordian ammonite fauna in Lanongla area, Tibetan Himalaya, characterized by endemic epimayaitids. Distribution of mayaitids around E Gondwana can be regarded as first signal establishment of Indo-Austral Subrealm in Late Jurassic-E Cretaceous)

Yu, C., X. Shi, X. Yang, J. Zhao, M. Chen & Q. Tang (2017)- Deep thermal structure of Southeast Asia constrained by S-velocity data. Marine Geophysical Research 38, 4, p. 341-355.
(Deep thermal structure of SE Asia, derived from empirical relation between S-velocity and T. Temperature at depth of 80 km in rifted and oceanic basins (Thailand Rift Basin, Gulf of Thailand, Andaman Sea and S China Sea) is ~200 °C higher than in plateaus (Khorat Plateau, Sumatra Island) and subduction zones (Philippine Trench). Surface heat flow in S China Sea mainly dominated by deep thermal state. Temperatures at 100-120 km depths more uniform. Estimated base of lithosphere corresponds to ~1400 °C isotherm; good correlation with tectonic setting.

Zahirovic, S., N. Flament, R.D. Muller, M. Seton & M. Gurnis (2016)- Large fluctuations of shallow seas in low-lying Southeast Asia driven by mantle flow. Geochem. Geophys. Geosystems 17, 9, p. 3589-3607.
(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=5216&context=smhpapers)

(On link between mantle flow and surface tectonics. SE Asia one of lowest lying continental regions in world, with half of continental area presently inundated by shallow sea. Widespread Late Cretaceous-Eocene regional unconformity in SE Asia likely driven by dynamic topography, i.e. several 100m of dynamic uplift and emergence of Sundaland between ~80-60 Ma due to slab breakoff after Late Cretaceous collision of Gondwana-derived terranes with Sundaland. Renewed subduction from ~60 Ma re-initiated dynamic subsidence of Sundaland, leading to submergence from ~40 Ma)

Zahirovic, S., K. Matthews, N. Flament, R. Muller, K. Hill, M. Seton & M. Gurnis (2016)- Tectonic evolution and deep mantle structure of the eastern Tethys since the latest Jurassic. Earth-Science Reviews 162, p. 293-337.
(Major review of plate tectonics of since 160 Ma. Rifting of 'Argoland' (E Java and W Sulawesi) in latest Jurassic from NW Australian shelf, likely colliding first with parts of Woyla intra-oceanic arc in mid-Cretaceous, and accreting to Borneo (Sundaland) core by ~80 Ma. Neo-Tethyan ridge likely consumed along intra-oceanic subduction zone S of Eurasia from ~105 Ma, leading to major change in motion of Indian Plate by ~100 Ma)

Zahirovic, S., K. Matthews, Ting Yang, N. Flament, D. Garrad, G. Brocard, J. Iwanec, K. Hill, M. Gurnis, R. Hassan, M. Seton & D. Muller (2018)- Tectonics and geodynamics of the eastern Tethys and northern Gondwana since the Jurassic. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, p. 1-6.
(Extended Abstract)
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abM1_1C)
(Evolution of E Neo-Tethys since latest Jurassic rifting along N Gondwana. New Guinea N-ward motion over subducted slabs (related to Sepik back-arc basin and Maramuni subduction system), resulted in long-term flooding of margin since ~20 Ma. Sundaland continental promontory dynamic uplift in latest Cretaceous-Eocene due to accretion of Woyla Arc at ~80 Ma, leading to slab breakoff and temporary interruption of subduction. Renewed subduction along Sunda margin resulted in renewed dynamic subsidence from ~30 Ma, amplified by regional basin rifting events. Sinking Sunda slab likely triggered mantle slab avalanche, resulting in contemporaneous basin inversion and dynamic subsidence from ~15 Ma)

Zahirovic, S., M. Seton & R.D. Muller (2014)- The Cretaceous and Cenozoic tectonic evolution of Southeast Asia. Solid Earth 5, p. 227-273.
(online at: www.solid-earth.net/5/227/2014/se-5-227-2014.pdf)
(Major review and new model of tectonic evolution of SE Asia in last 155 My, with significant differences from Hall, Metcalfe, etc. models. SW Borneo already part of SE Asia in Late Jurassic, and did not originate from NW Australian shelf. SE Java and W Sulawesi blocks rifted off New Guinea margin in Late Jurassic, etc.. With animation model in supplement)

Zakharov, Y.D., A.M. Popov & A.S. Biakov (2008)- Late Permian to Middle Triassic palaeogeographic differentiation of key ammonoid groups: evidence from the former USSR. Polar Research 27, p. 441-468.
(Incl. paleogeographic reconstructions with Late Permian- earliest Triassic (260- 247 Ma) distributions of ammonites in Paleotethys)

Zaw, K. (2014)- Metallogeny of mainland SE Asia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Ann. Conv. Indon. Soc. Econ. Geol. (MGEI), Palembang, p. 27-33.
(Brief review of mainland SE Asia mineral resources associated with complex tectonic history; see also Zaw (2014) paper below)

Zaw, K., S. Meffre, C.K. Lai, C. Burrett, M. Santosh, I. Graham, T. Manaka, A. Salam, T. Kamvong & P. Cromie (2014)- Tectonics and metallogeny of mainland Southeast Asia- a review and contribution. Gondwana Research 26, p. 5-30.
(Review of SE Asia mineral resources associated with complex tectonic history of Gondwana supercontinent break-up, arc magmatism, backarc basin development and collisions that created present-day mainland SE Asia. This paper summarizes historical and current SE Asian geological research and ore deposit studies. Incipient arc/backarc basin magmatism is key to formation of many important ore deposits in Truong Son and

Loei fold belts. Triassic to Cenozoic arc-continent and continent-continent collisions have led to the formation of sediment-hosted/orogenic gold deposits in Sukhothai and Sibumasu terranes. Oblique Cretaceous- Recent subduction along Andaman-Sunda trench responsible for gold and copper-gold-molybdenum porphyry and epithermal mineralization along arc in Myanmar and Sumatran volcanic arc)

Zhang, C.L., M. Santosh, Q.B. Zhu, X.Y. Chen & W.C. Huang (2015)- The Gondwana connection of South China: evidence from monazite and zircon geochronology in the Cathaysia Block. Gondwana Research 28, 3, p. 1137-1151.
(E Paleozoic structures, metamorphism and magmatic activity suggest Cathaysia (= SE part of S China block) collisional orogenic belt rather than intraplate type. Angular unconformity between Silurian- Devonian; transition from collision to post-collision at ~430Ma. Some E Paleozoic clastics probably of Gondwana origin.)

Zhang, K.J. (1998)- The Changning-Menglian suture zone: a segment of the major Cathaysia-Gondwana divide in Southeast Asia- comment. Tectonophysics 290, p. 319-321.
(Commentary of Wu et al. 1995 paper. Jinshajiang-Ailaoshao suture is main Cathaysia- Gondwana divide in China, not Lancangjiang-Changning-Menglian suture)

Zhang, K.J. & J.X Cai (2009)- NE-SW-trending Hepuï Hetai dextral shear zone in southern China: penetration of the Yunkai Promontory of South China into Indochina. J. Structural Geol. 31, 7, p. 737-748.
(NE-SW-trending Hepu-Hetai shear zone extends for ~480 km along Guangdong-Guangxi provinces boundary in S China.Dextral ductile strike-slip deformation, with estimated displacement of >500 km. Inclusions in quartz within mylonite suggest that ductile shear deformation under medium T/P conditions of greenschist facies; 40Ar/39Ar muscovite ages of 213-195 Ma. Shear zone originated via penetration of Yunkai Promontory of South China into Indochina during Late Triassic)

Zhang, Z.K. & J.X. Zhang (1986)- Paleomagnetic research on the upper Carboniferous basalts in Baoshan block, Yunnan and the tectonic belonging of the block. Bull. Inst. Geol. Chinese Acad. Geol. Sci., p. 184-189. *(In Chinese with English abstract. Xu et al. 2014: Paleomagnetic work on E Permian Woniusi Fm basalts 12 km NE of Baoshan, SW China, suggest terrane was at 34.1° S in E Permian. Result comparable to Xu et al. 2014)*

Zhao, D. (2012)- Tomography and dynamics of Western-Pacific subduction zones. Monogr. Environ. Earth Planets 1, 1, p. 1-70.
(online at: www.terrapub.co.jp/onlinemonographs/meep/pdf/01/0101.pdf)

Zhao, D., S. Maruyama & S. Omori (2007)- Mantle dynamics of Western Pacific and East Asia: insight from seismic tomography and mineral physics. Gondwana Research 11, p. 120-131.
(Tomography of E Asia, the location of double-sided subduction zone where old Pacific plate subducts from E, and Indo-Australia plate subducts from S)

Zhao, T., Q. Feng, I. Metcalfe, L.A. Milan, G. Liu & Z. Zhang (2017)- Detrital zircon U-Pb-Hf isotopes and provenance of Late Neoproterozoic and Early Paleozoic sediments of the Simao and Baoshan blocks, SW China: Implications for Proto-Tethys and Paleo-Tethys evolution and Gondwana reconstruction. Gondwana Research 51, p. 193-208.
(Detrital zircons from Ordovician? Lancang Gp (separate Lancang Block?) and Mengtong and Mengdingjie Gps (Baoshan Block) with three age peaks: older Grenvillian (1200-1060 Ma), younger Grenvillian (~960 Ma) and Pan-African (650-500 Ma), with εHf(t) values similar to W Australia and N India. E Paleozoic Proto-Tethys represents narrow ocean basin separating 'Asian Hun superterrane' (N China, S China, Tarim, Indochina, N Qiangtang blocks) from N margin of Gondwana in Late Neoproterozoic- E Paleozoic. Proto-Tethys closed in Silurian at ~440–420 Ma when 'Asian Hun superterrane' collided with N Gondwana margin. Lancang Block separated from Baoshan Block in E Devonian when Paleo-Tethys opened as back-arc basin)

Zhao, T., X. Qin & Q. Feng (2015)- Zircon U-Pb-Hf isotopes and whole-rock geochemistry of the Late Triassic rhyolites from Lampang Zone, northern Thailand: implications for the closure of Paleo-Tethys. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 102-106. *(Extended Abstract)*

(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf)
(E Norian (225.1±1.2 Ma) ages of post-collisional rhyolites in Lampang area minimum age of final closure of E Paleo-Tethys between Sibumasu and Indochina blocks. Older age from inherited zircons (242±1.9 Ma) resembles arc volcanic rocks from Doi Luang belt in same area. High-K calc-alkaline Lampang rhyolites formed in post-collisional extensional environment, controlled mainly by lithospheric delamination or slab breakoff. Youngest pelagic sediments in Changning-Menglian and Inthanon Suture Zones M Triassic (Triassocampe deweveri radiolarian assemblage), suggesting Paleo-Tethys ocean not yet closed in M Triassic)

Zhao, X., R.S. Coe, S.A. Gilder & G.M. Frost (1996)- Palaeomagnetic constraints on the palaeogeography of China: implications for Gondwanaland. Australian J. Earth Sci. 43, 6, p. 643-672.
(Paleomagnetic data show three main blocks of China (North China, South China, Tarim) were at or near equatorial latitudes in E and M Paleozoic. Late Paleozoic data suggest they were too far N to be attached to Gondwanaland and suggest they rifted from Gondwanaland in Late Devonian and Carboniferous. Etc.)

Zharkov, M.A. & N.M. Chumakov (2001)- Paleogeography and sedimentation settings during Permian- Triassic reorganizations in biosphere. Stratigraphy Geol. Correl. 9, 4, p. 340-363.
(Artinskian- Kungurian Metaperrinites and Kungurian Perrinites faunas in Ratburi Group in N Central and S Central Thailand, represent part of Tethyan perrinitid belt from Crimea in W to Timor in E)

Zhong, D. (2000)- Paleotethysides in West Yunnan and Sichuan, China. Science Press, Beijing, p. 1-248.
(Collection of papers on evolution of W Yunnan- Sichuan, containing sector of Paleotethysides where it turns from E-W belts of Tibetan Plateau to N-S mountain belts of mainland SE Asia. Formed by closure of Paleotethys in Late Paleozoic by collision of Gondwan Tengchong and Baoshan Blocks with Eurasia (Yangtze, Simao blocks). Paleotethys was composed of main intercontinental ocean with several smaller intra-continental oceans and troughs)

Zhou, Z. (1990)- The Early Mesozoic orogeny in the northern shelf of the South China Sea and its adjacent lands. In: X. Jin et al. (eds.) Proc. Symposium Recent contributions to the geological history of the South China Sea, Hangzhou 1990, p. 119-125.
(E Triassic continental collision (of Cimmerian Blocks) in SE China, marking beginning of E Mesozoic orogeny in region. In end-Jurassic, Borneo began rifting away from S China margin, creating Proto-South China Sea. Present S. China Sea has evolved after drifting away from S China margin of continental fragments such as N Palawan, Reed Bank, Xisha Islands, Zhongsha Islands and others)

Zhu, Z. & Z. Yang (2008)- Distribution, origin and mineralization of two types of Cenozoic adakite and adakite-like rocks in southeastern Asia. Dizhi Lixue Xuebao = J. Geomechanics, Beijing, 14, 4, p. 328-338.
(In Chinese with English summary.) (Adakite and adakite-like intermediate-acid magmatic rocks well developed in Cenozoic of Indonesia- New Guinea. Two types of origin: (1) oceanic type tholeiitic/calc-alkaline series with REE pattern of oceanic island arcs, seen at the oceanic islands; (2) continental type high-K calc-alkaline series with continental type REE patterns, often in continental margin orogenic zone and related to arc-continent collision zone or post-collision. Continental-type adakite similar distribution to large porphyry copper-gold deposits; oceanic island arc type adakite rocks related to epithermal gold zones and ehalation ore deposits)

Ziegler, A.M., M.L. Hulver, A.L. Lottes & W.F. Schmachtenberg (1997)- Permian world topography and climate. In: I.P. Martini (ed.) Late glacial and post-glacial environmental changes- Quaternary, Carboniferous-Permian and Proterozoic, Oxford University Press, p. 111-146.

Ziegler, A.M., P.M. Rees, D.B. Rowley, A. Bekker, L. Qing & M.L. Hulver (1996)- Mesozoic assembly of Asia: constraints from fossil floras, tectonics, and paleomagnetism. In: A. Yin & M. Harrison (eds.) The tectonic evolution of Asia. Cambridge University Press, p. 371-400.
(Permian- Jurassic reconstructions of terranes of N parts of Asia (Eurasia- China) based on paleomagnetic and flora data. Little or nothing on SE Asia)

I.3. Volcanism, Volcanic rocks geochemistry

(This listing is a limited selection of an extensive body of literature on Indonesia volcanic activity and its products. Additional titles on volcanism that are specific to one region may be included under these regions)

Abdurrachman, M., S. Widiyantoro, B. Priadi & T. Ismail (2017)- Geochemistry and seismic tomogram beneath Krakatoa volcano, Sunda Strait, Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 3p.
(S-wave tomographic image under Krakatoa shows subducted slab has been intruded by hot mantle material, suggesting possible tearing of subducting plate)

Abdurrachman, M., S. Widiyantoro, B. Priadi & T. Ismail (2018)-Geochemistry and structure of Krakatoa volcano in the Sunda Strait, Indonesia. Geosciences, 8, 4, 111, p. 1-10.
(online at: www.mdpi.com/2076-3263/8/4/111)
(Tomographic image and geochemical data of Krakatoa area lavas suggests subducted slab intruded by hot material of mantle upwelling. Partial melting of mantle wedge and mantle upwelling in upper mantle may be caused by thinning of subducted slab under Krakatoa Volcano)

Abdurrachman, M., M. Yamamoto, E. Suparka, I.G.B.E. Sucipta, I.A. Kurniawan et al. (2015)- Across arc variation of strontium isotope and K2O composition in the Quaternary volcanic rocks from West Java: evidence for crustal assimilation and the involvement of subducted components. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-138, 5p.
(No across-arc variation of K2O and Sr isotopic ratios in West Java Arc. Papandayan volcano medium-K series with high 87Sr/86Sr (0.7052-0.7059); Cikuray low-K, with low 87Sr/86Sr (0.70417-0.70426). Across arc variation of magma chemistry explained by crustal assimilation and involvement of subducted components)

Abrams, L.J. & H. Sigurdsson (2007)- Characterization of pyroclastic fall and flow deposits from the 1815 eruption of Tambora volcano, Indonesia using ground-penetrating radar. J. Volcanology Geothermal Res. 161, p. 352-361.
(Ground-penetrating radar helps image and characterize fall and pyroclastic flow deposits from Tambora 1815 eruption. Reflection of interface between pre-eruption clay-rich soil and pyroclastics reaches maximum thickness of 4m. Soil surface terraced and used for agriculture and buildings)

Agangi, A. & S.M. Reddy (2016)- Open-system behaviour of magmatic fluid phase and transport of copper in arc magmas at Krakatau and Batur volcanoes, Indonesia. J. Volcanology Geothermal Res. 327, p. 669-686.

Bahar, I. (1984)- Contribution a la connaissance du volcanisme indonesien: le Merapi (Centre Java), cadre structural, petrologie, geochimie et implications volcanologiques. Ph.D. Thesis Universite de Montpellier, p. 1-213. *(Unpublished)*
('Contribution to the knowledge of Indonesian volcanism: the Merapi (C Java), structural setting, petrology, geochemistry and volcanological implications')

Bahar, I. & M. Girod (1983)- Controle structural du volcanisme indonesien (Sumatra, Java-Bali); application et critique de la method de Nakamura. Bull. Soc. Geol. France (7), 25, 4, p. 609-614.
('Structural control on Indonesian volcanism (Sumatra, Java-Bali); application and critique of the Nakamura method')

Bani, P., G. Tamburello, E.F. Rose-Koga, M. Liuzzo, A. Aiuppa, N. Cluzel, I. Amat, D.K. Syahbana, H. Gunawan & M. Bitetto (2018)- Dukono, the predominant source of volcanic degassing in Indonesia, sustained by a depleted Indian-MORB. Bull. Volcanology 80, 5, p. 1-14.
(Little known Dukono volcano on N Halmahera island regularly erupting since 1933. Gas emissions show huge magmatic volatile contribution into atmosphere, with annual output of ~290 kt SO2, 5000 kt H2O, 88 kt CO2, 5 kt H2S and 7 kt H2 (in top 10 volcanic SO2 sources on Earth). Degassing sustained by depleted Indian-MORB mantle source, currently undergoing lateral pressure from steepening of subducted slab, downward force from Philippine Sea plate and W-ward motion of continental fragment along Sorong fault)

Borisova, A.Y., A.A. Gurenko, C. Martel, K. Kouzmanov & S. Sumarti (2016)- Oxygen isotope heterogeneity of arc magma recorded in plagioclase from the 2010 Merapi eruption (Central Java, Indonesia). Geochimica Cosmochimica Acta 190, p. 13-34.

Bronto, S. & Surono Martosuwito (eds.) (2014)- Indonesian arc magmatism- a collection of papers by Professor Udi Hartono. Center for Geological Survey (CGS), Geological Agency, Bandung, p. 1-623.
(Reprint collection of 39 papers, originally published between 1987-2011)

Broom-Fendley, S, M. Thirlwall, M. Cottam & R. Hall (2011)- Geochemistry and tectonic setting of Una-Una Volcano, Sulawesi, Indonesia. Goldschmidt Mtg, Prague 2011, Mineralogical Magazine 75, 3, p. 585. *(Abstract only)*
(Volcanic rocks from Una-Una (<~100 Ka) and nearby Togian islands (~2 Ma) both alkaline or high-K calc-alkaline trachyte. Isotopic trends and geochemistry indicate ancient continental contribution to magma source, possibly Indian Ocean pelagic sediment. Probably related to young extension of Gorontalo Bay due to slab rollback)

Brouwer, H.A. (1916)- Het vulkaaneiland Roeang (Sangi eilanden) na de eruptie van 1914. Tijdschrift Kon. Nederlandsch Aardrijkskundig Gen. 33, p. 89-94.
('The volcanic island Ruang (Sangi Islands) after the eruption of 1914')

Brouwer, H.A. (1921)- Het vulkaaneiland Roeang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 2, p. 6-30.
('The volcano island Raung'. Active volcano in Sangi islands group)

Brouwer, H.A. (1939)- Leucite rocks of the active volcano Batoe Tara (Malay Archipelago). Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 42, 1, p. 23-29.
(online at: www.dwc.knaw.nl/DL/publications/PU00017280.pdf)
(Batoe Tara or Komba ~50 km N of Lomblen, E of Flores, rises from deep sea to nearly 750m above sea-level. Active volcano with different types of leucite rocks: leucite basanite, biotite-leucite tephrites, etc.)

Budd, D.A., V.R. Troll, F.M. Deegan, E.M. Jolis, V.C. Smith, M.J. Whitehouse, C. Harris, C. Freda, D.R. Hilton, S.A. Halldorsson & I.N. Bindeman (2017)- Magma reservoir dynamics at Toba caldera, Indonesia, recorded by oxygen isotope zoning in quartz. Nature Scientific Reports 7, 40624, p. 1-11.
(online at: https://www.nature.com/articles/srep40624.pdf)
(Quartz crystals from 75ka Toba tuffs rel. high δ18O values (up to 10.2‰), due to magma residence within and assimilation of local granite basement. Decrease in δ18O values in outer growth zones suggests assimilation of altered roof material and may represente eruption trigger in large Toba-style magmatic systems)

Buhring, C., M. Sarnthein & Leg 184 Shipboard Scientific Party (2000)- Toba ash layers in the South China Sea: evidence of contrasting wind directions during eruption ca. 74 ka. Geology 28, 3, p. 275-278.
(Cores from southern S China Sea with up to 3.5cm thick ash layers with rhyolithic glass shards. Dated at ~74 ka (O-isotope Stage 4-5 boundary), the age of youngest Toba eruption in N Sumatra. Composition of glass similar to Toba ash. Youngest Toba ash layers in S China Sea expand previously known ash-fall zone over >1800 km to E and increased volume estimates of erupted Toba ash. See also comments by Chen et al. 2000)

Carey, S. & H. Sigurdsson (1992)- Generation and dispersal of tephra from the 1815 eruption of Tambora volcano, Indonesia. In: E.T. Degens, H.K. Wong & M.T. Zen (eds.) The sea off Mount Tambora, Mitteilungen Geol. Paleont. Inst. Universitat Hamburg 70, p. 207-226.

Carter, N.L., C.B. Officer, C.A. Chesner & W.I. Rose (1986)- Dynamic deformation of volcanic ejecta from the Toba caldera: possible relevance to Cretaceous/Tertiary boundary phenomena. Geology 14, 5, p. 380-383.
(Plagioclase and biotite phenocrysts in ignimbrites erupted from Toba caldera show microstructures and textures indicative of shock stress levels >10 GPa)

Chaussard, E. & F. Amelung (2012)- Precursory inflation of shallow magma reservoirs at west Sunda volcanoes detected by InSAR. Geophysical Research Letters 39, L21311, p. 1-6.
(Interferometric Synthetic Aperture Radar data across Sumatra-Java- Bali arc provided evidence of inflation at six volcanoes (Sinabung, Kerinci in Sumatra; Slamet, Lawu, and Lamongan in Java; Agung in Bali), three of which erupted after observation period (Sinabung, Kerinci, Slamet). These volcanoes have shallow magma reservoirs. Globally, arc volcanoes in extensional and strike-slip settings (W Sunda) can develop shallow reservoirs, whereas volcanoes in compressional settings may lack them)

Conte, A.M., C. Freda, M. Gaeta, D.M. Palladino, P. Scarlato, J. Taddeucci & R. Trigila (1999)- Mechanism for the 1983 eruption of Colo Volcano, Una-Una Island, Indonesia. Acta Vulcanologica 11, 2, p. 245-254.

Cooke, R.J.S., J.T. Baldwin & T.J. Sprod (1976)- Recent volcanoes and mineralization in Papua New Guinea. 25th Int. Geological Congress, Sydney, Excursion Guide 53AC, p. 1-32.

De Silva, S.L., A.E. Mucek, P.M. Gregg & I. Pratomo (2015)- Resurgent Toba- field, chronologic, and model constraints on time scales and mechanisms of resurgence at large calderas. Frontiers Earth Sci. 3, 25, p. 1-17.
(online at: http://journal.frontiersin.org/article/10.3389/feart.2015.00025/full)
(Samosir Island in Lake Toba caldera was submerged below lake level (~900m above s.l.) at 33 ka. Since then uplifted 700m as tilted block dipping to W. 14C ages and elevations of sediment reveal minimum uplift rates of ~4.9 cm/yr from ~33.7-22.5 ka, but diminished to ~0.7 cm/yr after 22.5 ka)

De Hoog, J.C.M. (2001)- Behavior of volatiles in arc volcanism. Geochemical and petrologic evidence from active volcanoes in Indonesia. Geologica Ultraiectina 204, p. 1-220.
(online at: http://igitur-archive.library.uu.nl/dissertations/1954688/full.pdf)

De Hoog, J.C., B.E. Taylor & M.J. van Bergen (2001)- Sulfur isotope systematics of basaltic lavas from Indonesia: implications for the sulfur cycle in subduction zones. Earth Planetary Sci. Letters 189, p. 237-252.
(Sulfur isotope compositions of basaltic and basaltic andesite lavas from 7 modern volcanoes of Java and Lesser Sunda islands range in d14S from +2.0 to +7.8, average +4.7. Magmas in Indonesian arc system originate from mantle sources enriched in 34S relative to MORB and OIB sources. Enrichment in 34S reflects addition of slab-derived material, presumably from sediments rather than altered oceanic crust)

De Hoog, J.C.M., B.E. Taylor & M.J. van Bergen (2009)- Hydrogen-isotope systematics in degassing basaltic magma and application to Indonesian arc basalts. Chemical Geology 266, 3, p. 256-266.
(Predictive model for hydrogen-isotope shifts during degassing of basaltic-andesitic magma, from samples from 7 volcanoes along Sunda and Sangihe arcs (Batur, Rinjani, Guntur, Galunggung, Krakatau, Soputan, etc.))

De Jong Boers, B. (1995)- Mount Tambora in 1815: a volcanic eruption in Indonesia and its aftermath. Indonesia 60, p. 37-60.
(Historic account of Tambora 1815 eruption and its consequences. No geology)

Della-Pasqua, F.N., V. S. Kamenetsky, M. Gasparon, A.J. Crawford & R. Varne (1995)- Al-spinels in primitive arc volcanics. Mineralogy and Petrology 53, p. 1-26.
(Al-rich spinels common in alpine peridotites and in certain metamorphic rocks, but rare in terrestrial volcanic rocks. Descriptions of occurrences of Al-rich spinel inclusions in olivine phenocrysts in island arc volcanics from five localities, including basaltic andesites of Bukit Mapas (S Sumatra) and high-K shoshonitic ankaramites of SE Bali)

Dosso, L., J.L. Joron, R.C. Maury & H. Bougault (1987)- Isotopic (Sr, Nd) and trace element study of back-arc basalts behind the Sunda arc. Terra Cognita 7, p. 398. *(Abstract only?)*

Dvorak, J.J., H. Said, R.D. Hadisantono, N. Rahardja, D. Mulyadi, D. Reksowirogo & K. Restikadjaja (1987)- Geodetic measurements at Indonesian volcanoes. U.S. Geol. Survey (USGS) Rept. OF 87-0130, p. 1-40.

(online at: http://pubs.usgs.gov/of/1987/0130/report.pdf)

Edwards, C.M.H. (1990)- Petrogenesis of tholeiitic, calc-alkaline and alkaline volcanic rocks, Sunda Arc, Indonesia. Ph.D. Thesis, Royal Holloway and Bedford New College, University of London, p. 1-373.
(Unpublished) (Incl. volcanic rock chemistry of Gunung Guntur, Ringgit-Besar, Muriah, Flores, etc.)

Edwards, C.M.H., J.D. Morris, M.F. Thirlwall (1993)- Separating slab from mantle signatures in arc lavas using B/Be and radiogenic isotope systematics. Nature 362, 6420, p. 530-533.
(Combining B/Be with Sr, Nd and Pb isotopes of alkaline, calk-alkaline and tholeiitic lavas of young volcanoes from Java (Guntur, Ringgit) and Flores (Kelimutu, Lewitobi, Mandiri). High B/Be and 10Be/9Be ratios in tholeiitic and calk-alkaline lavas are partial melts of mantle produced by fluxing by fluids from subducted slabs. Alkaline lavas always low B/Be and derived from mantle not modified by recent subduction)

Ehrenberg, C.G. (1855)- Nahere Bestimmung der Mischung des frischen Auswurfs des Schlammvulkans von Poerwodadi auf Java. Bericht Bekanntmachung konigl. Preussische Akademie Wissenschaften Berlin, p. 570-576.
(online at: www.biodiversitylibrary.org/item/41576#page/584/mode/1up)
('Determination of the mixture of fresh eruptive products of the mud volcano of Purwodadi on Java'. Muds with mix of marine and non-marine foraminifera and diatoms)

Elburg, M., J.D. Foden, M.J. van Bergen & I. Zulkarnain (2004)- Along- and across-arc geochemical constraints on sources and transfer processes in the Sunda-Banda Arc, Indonesia. 4p.
(online at: www.geophysics.rice.edu/sota/papers)

Elburg, M.A., J.D. Foden, M.J. van Bergen & I. Zulkarnain (2005)- Australia and Indonesia in collision: geochemical sources of magmatism. J. Volcanology Geothermal Res. 140, p. 25-47.
(Alor, Lirang, Wetar and Romang in extinct section of Sunda-Banda arc, where collision with Australia brought subduction to halt. Pb isotopes reflect mixing from subducting Australian crust)

Elburg, M.A. & V.S. Kamenetsky (2008)- Limited influence of subducted continental material on mineralogy and elemental geochemistry of primitive magmas from Indonesia-Australia collision zone. Lithos 105, p. 73-84.
(Two basalt-andesite samples from Alor Island. Sr, Nd and Pb isotope data show influence of subducted continental material, but major and trace element compositions not very different from typical subduction-related magmas)

Escher, B.G. (1937)- Rapport sur les phenomenes volcanologiques dans lô Archipel Indien pendant les annees 1933, 1934 et 1935 et sur les ouvrages de volcanologique publies durant ces annees, concernant les volcans des Indes Neerlandaises. Bull. Volcanologique 1937, 1, p. 127-177.
('Report on the volcanological phenomena in the Netherlands Indies Archipelago in the years 1933, 1934 and 1935, and on works on volcanology published on volcanoes of the Netherlands Indies')

Faber, F.J. (1964)- Modderkogels, mergelconcreties of askogels van Krakatau. Geologie en Mijnbouw 43, 11, p. 467-475.
('Mudballs, marl concretions or ash bullets from Krakatoa'. Example of spherical mud balls or 'ash-balls' up to 7 cm in diameter. Origin somewhat unclear)

Foden, J.D. (1979)- The petrology of some young volcanic rocks from Lombok and the Lesser Sunda islands. Ph.D. Thesis University of Tasmania, Hobart, p. 1-306.
(online at: http://eprints.utas.edu.au/17675/1/Foden_Thesis.pdf)
(Study of 5 modern volcanoes in E Sunda arc: Rindjani (Lombok) and G. Sangenges, Tambora, Soromundi and Sangeang Api (Sumbawa) island. All occur 165-190 km above active, N dipping Benioff Zone. Volcanoes of this sector of arc erupted diverse range of lavas, ranging from ankaramite-high-Al basalt-andesite-dacite suite of Rindjani, through moderately potassic ne-trachybasalt- trachyandesite suites from Tambora and Sangeang Api,

to highly undersaturated, leucite-bearing types from G. Sangenges and Soromundi. The K20-content of these suites shows no correlation with depth to Benioff Zone)

Foden, J.D. (1983)- The petrology of the calcalkaline lavas of Rindjani Volcano, East Sunda Arc: a model for island arc petrogenesis. J. Petrology 24, p. 98-130.
(Rindjani large, active compound strato-volcano on Lombok, in W part of E Sunda Arc. Pleistocene-Recent calcalkaline suite composed of diverse lavas, including ankaramite, high-Al basalt, andesite, high-K andesite and dacite. Sr-isotopic and geochemical constraints suggest derivation from sub-arc mantle)

Foden, J.D. (1986)- The petrology of Tambora volcano, Indonesia: a model for the 1815 eruption. J. Volcanology Geothermal Res. 27, p. 1-41.
(Lavas of Tambora volcano on Sumbawa lavas of unusual, moderately undersaturated, K2O-rich types, ranging from ne-trachybasalt to ne-trachyandesite. Products of 1815 eruption are black, glassy, biotite-bearing, ne-trachyandesites with scoria, pumice and tuff of same composition. 1815 eruption followed lengthy period of inactivity)

Foden, J.D. & R. Varne (1980)- The petrology and tectonic setting of the Quaternary- Recent volcanic centres of Lombok and Sumbawa. Chemical Geology 30, p. 201-226.
(Bali-Lombok-Sumbawa sector of Sunda arc flanked in N and S by oceanic crust. Oldest rocks from Lombok and Sumbawa islands Lower Miocene- Pliocene sediments and volcanics beneath Quaternary volcanic centres. Three large active volcanoesin N parts of Lombok (Rindjani; basalt-andesite-dacite) and Sumbawa (Tambora and Sangeang Api; trachybasalt-trachyandesite), all ~150-190 km above N-dipping Benioff zone. Extinct Quaternary centres S of active volcanoes on Sumbawa (Soromundi, Sangenges). Volcanic composition-space-time relations in Lombok-Sumbawa sector not in accordance with general island-arc schemes)

Foden, J.D. & R. Varne (1981)- The geochemistry and petrology of the basalt-andesite-dacite suite from Rinjani volcano, Lombok: implications for the petrogenesis of island arc, calcalkaline magmas. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Mtg., Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, Bandung, p. 115-134.
(Rinjani lavas compositionall diverse, from ankaramites and high-Al basalts to andesites and dacites, representing typical calkalkaline association erupted by many Circum-Pacific volcanoes)

Foden, J.D. & R. Varne (1981)- Petrogenetic and tectonic implications of near coeval calk-alkaline volcanism on Lombok and Sumbawa islands in the eastern Sunda Arc. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia, Proc. CCOP-IOC SEATAR Working Group Mtg., Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, Bandung, p. 135-152.
(Quaternary volcanoes of Lombok- Sumbawa sector of E Sunda Arc occur 165-190km above N-dipping Benioff zone. Diverse range of lavas. No correlation between K2) content and depth to Benioff zone. Between-volcano variations reflect mantle source heterogeneity)

Fontijn, K., F. Costa, I. Sutawidjaja, C.G. Newhall & J.S. Herrin (2015)- A 5000-year record of multiple highly explosive mafic eruptions from Gunung Agung (Bali, Indonesia); implications for eruption frequency and volcanic hazards. Bull. Volcanology 77, 59, p. 1-15.

Gardner, J.E., P.W. Layer & M.J. Rutherford (2001)- Phenocrysts versus xenocrysts in the youngest Toba Tuff: implications for the petrogenesis of 2800 km3 of magma. Geology 30, 4, p. 347-350.
(40Ar/39Ar dating of biotite, sanidine, hornblende, and plagioclase from youngest Toba Tuff of 75 ka suggests hornblende and some plagioclase are xenocrysts and came from at least 1.5 Ma old source)

Gasparon, M., D.R. Hilton & R. Varne (1994)- Crustal contamination processes traced by helium isotopes: examples from the Sunda arc, Indonesia. Earth Planetary Sci. Letters 126, p. 15-22.
(Helium He-3/He-4 isotope data from olivine and clinopyroxene from 13 volcanic centres between C Sumatra and Sumbawa in Sunda arc indicate crustal contamination unrelated to subduction in Sunda arc)

Gasparon, M. & R. Varne (1998)- Crustal assimilation versus subducted sediment input in west Sunda arc volcanics: an evaluation. Mineralogy and Petrology 64, p. 89-117.
(Geochemical analyses of Quaternary-Cretaceous sediments from NE Indian Ocean used to estimate composition of sedimentary material subducted along Sunda Trench. Post-Miocene siliceous clastic sediments near Sunda arc largely derived from arc itself, largely accreted and not subducted. The least contaminated arc volcanics in W section of W Sunda arc, where sediment flux highest. Assimilation of crustal material by uprising melts from Indian Ocean-type mantle wedge better accounts for isotope changes of arc volcanics, and ties to variations in crustal thickness and composition along arc)

Gertisser, R. & S. Self (2015)- The great 1815 eruption of Tambora and future risks from large-scale volcanism. Geology Today 31, 4, p. 132-136

Gertisser, R., S. Self, L.E. Thomas, H.K. Handley, P. van Calsteren & J.A. Wolff (2012)- Processes and timescales of magma genesis and differentiation leading to the Great Tambora Eruption in 1815. J. Petrology 53, 2, p. 271-297.
(online at: https://petrology.oxfordjournals.org/content/early/2011/12/15/petrology.egr062.full.pdf+html)
(Eruption of Tambora volcano (Sumbawa) in 1815 one of largest explosive eruptions in historical time. Extensive pyroclastic deposits from emptying of 30-33 km3 trachyandesite magma body. Parental trachybasalt magma can be produced by ~2% partial melting of garnet-free, Indian-type mid-ocean ridge basalt-like mantle source contaminated with ~3% fluids from altered oceanic crust and <1% sediment. Differentiation from primary trachybasalt to trachyandesite in two-stage polybaric differentiation)

Gill, J.B. & R.W. Williams (1990)- Th isotope and U-series studies of subduction-related volcanic rocks. Geochimica Cosmochimica Acta 54, 5, p. 1427-1442.
(On U, Th, Po, Ra isotopes in volcanic arc rocks, incl. data from Sunda, Banda and Sangihe Arcs, Indonesia)

Gogarten, E. (1918)- Die Vulkane der nordlichen Molukken. Zeitschrift fur Vulkanologie, Erganzungsband 2, p. 1-298.
('The volcanoes of the Northern Moluccas')

Guillet, S., C. Corona, M. Stoffel, M. Khodri, F. Lavigne, P. Ortega, N. Eckert, P. D. Sielenou, V. Daux et al. (2017)- Climate response to the Samalas volcanic eruption in 1257 revealed by proxy records. Nature Geoscience 10, p. 123-128.
(Eruption of Samalas volcano on Lombok in 1257 with sulfur in ice cores twice volume of 1815 Tambora eruption. >40 km3 of dense magma expelled; eruption column up to 43 km altitude. Years 1258 and 1259 some of coldest N Hemisphere summers of past millennium. Eruption aggravated existing famine crises)

Gulyas, E. & P. Hederveri (1976)- Concentration of seismic energy within the two active domains beneath individual volcanoes and groups of volcanoes of Java, Indonesia. Tectonophysics 30, p. 129-140.
(Two seismically active domains under all individual active volcanoes of Java, separated by aseismic space)

Gunawan, H., Surono, A. Budianto, Kristianto, O. Prambada, W. McCausland, J. Pallister & M. Iguchi (2017)- Overview of the eruptions of Sinabung eruption, 2010 and 2013-present and details of the 2013 phreatomagmatic phase. J. Volcanology Geothermal Res., p. *(in press)*
(Small phreatic eruption of Sinabung Volcano, N Sumatra, in August 2010 marked first eruption in last ~1200 years. New eruption began on 15 September 2013 and continues to present. Ongoing eruption 5 major phases)

Hadikusumo, D. (1961)- Report on the volcanological research and volcanic activity in Indonesia for the period 1950-1957. Bull. Volcanological Survey Indonesia 100, p. 1-122.

Halldorsson, S.A., D.R. Hilton, V.R. Troll & T.P. Fischer (2013)- Resolving volatile sources along the western Sunda arc, Indonesia. Chemical Geology 339, p. 263-282.
(Chemical and isotope (He-C-N) data of fumaroles and hydrothermal fluids from 19 volcanic centers along W Sunda arc suggest subducting slab is principal provider of volatiles. Increased contribution of CO2 in N

Sumatra suggest subducted sediment (particularly Nicobar Fan Himalayan-derived sediment) strong control on magmatic CO2 characteristics, suggesting significant part must enter trench)

Harijoko, A., N.A.S. Mariska & F. Anggara (2018)- Estimated emplacement temperatures for a pyroclastic deposits from the Sundoro volcano, Indonesia, using Charcoal Reflectance analyses. Indonesian J. Geoscience 5, 1, p. 1-11.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/386/247)
(Maximum emplacement temperature of pyroclastic flows based on charcoal reflectance is 487°C)

Hartmann, M. (1935)- De werkende vulkanen van het eiland Lomblen (Solor Archipel). Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2), 52, p. 817-836.
('The active volcanoes of Lomblen Island (Solor Archipelago)'. Lomblen E of Flores, with 3 active (Lewotolo, Labalekan, Ili Weroeng) and 2 recently active (Kedang, Mingar) volcanoes)

Hartmann, M. (1935)- Der Vulkan Batoe Tara. Zeitschrift Vulkanologie 16, p. 180-191.
('The Batu Tara volcano'. Active volcano, ~700m high, in Banda (Flores) Sea NE of Flores, 50km N of Lembata (Lomblen) island. Known for its potassic leucite-bearing basanitic and tephritic rocks (see also Stolz et al. 1988, Van Bergen et al. 1992, etc.))

Hartono, U. (2000)- Island arc magmatism: a general review on petrogenetic models. J. Geologi Sumberdaya Mineral 10, 110, p. 16-23.
(General discussion of genesis of island arc magmas. Three potential sources, mantle wedge above subducting slab, subducted slab of oceanic crust and possibly sediments and arc crust)

Hartono, U. (2009)- Contribution of arc magmatism studies in early stage mineral exploration. J. Sumber Daya Geologi 19, 5, p. 287-296.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/213/203)
(Indonesia has 15 or more volcanic arcs with total length of ~9000 km. Eight arcs contain known mineral deposits, while rest may be prospective. Mainly general discussion on arc magmatism and mineral deposits No correlation between porphyry-Cu or epithermal mineralizations and single petrological/ geological factor)

Hartono, U. & R.I.H. Sulistyawan (2011)- An overview of arc magma petrogenesis. J. Sumber Daya Geologi 21, 4, p. 179-190.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/145/141)
(Review of subduction-related magmas. Most arc magmas derived from melting of upper mantle induced by released fluids and incompatible elements from subducted oceanic crust. Crustal-derived magmas, from melting of either subducted slab or lower crust, also present in some arcs)

Hartono, U. & R.I.H. Sulistyawan (eds.) (2011)- Indonesian arc magmatism: petrology, tectonics, and mineralization. Geological Agency, Bandung, Spec. Publ., p. 1-278.

Hasibuan, R.F., T. Ohba, M. Abdurrachman & T. Hoshide (2017)- Magmas characteristics of Rajabasa volcanic complex inferred by petrological approach. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Rajabasa dormant Quaternary volcano at S tip of Sumatra. Volcanics mainly basaltic andesite, with K-Ar ages of volcanics 0.31-0.12 Ma (Pleistocene). Older volcanics SE of Rajabasa at nearby Tangkil (4.33 Ma; Pliocene). Two distinct type of magmas in Tangkil, calc-alkaline dacite and tholeiitic basalt)

Haslam, M. (2013)- Climate effects of the 74 ka Toba super-eruption: multiple interpretive errors in óA high-precision 40Ar/39Ar age for the Young Toba Tuff and dating of ultra-distal tephraô by D. Mark, et al.. Quaternary Geochronology 18, p. 173-175.
(Critique of Mark et al 2013 paper)

Hatherton, T. & W.R. Dickinson (1969)- The relationship between andesitic volcanism and seismicity in Indonesia, the Lesser Antilles, and other island arcs. J. Geophysical Research 74, p. 5301-5310.
(Early paper documenting increase in K-content with depth to seismic Benioff zone)

Heyckendorf, K. & D. Jung (1992)- Tambora volcano, Sumbawa Island, Indonesia; a comparison of ancient and modern volcanic products. Mitteilungen Geol.-Palaont. Inst. Universitat Hamburg 73, p. 1-35.

Hidayati, S. & C. Sulaeman (2013)- Magma supply system at Batur Volcano inferred from volcano-tectonic earthquakes and their focal mechanism .
(online at: http://ijog.bgl.esdm.go.id/index.php/IJOG/article/view/159/159)
(Volcano-tectonic earthquakes in September- November 2009 show epicentres aligning in NE- SW direction, coinciding with weak zone of Batur Volcano Complex, Bali. Focal zone depths ~1.5- 5.5 km beneath summit)

Hilton, D.R. & H. Craig (1989)- A Helium isotope transect along the Indonesian archipelago. Nature 342, 6252, p. 906-908.
(Banda arc 3He/4He ratios significantly lower than common ratio in mid-ocean-ridge basalts (MORB). 80% of radiogenic He is from subducting continental material. Measurements along Sunda arc show MORB-like ratios from W Java to sharp transition zone at Lomblen Island (N/NW of Timor), where low ratios of Banda arc begin)

Hilton, D.R., J.A. Hoogewerff, M.J. van Bergen & K. Hammerschmidt (1992)- Mapping magma sources in the east Sunda-Banda arcs, Indonesia: constraints from Helium isotopes. Geochimica Cosmochimica Acta 56, p. 851-859.
(He isotope analyses from 11 volcanoes from Flores (E Sunda arc) through inactive segment between arcs to Banda Island. Results consistent with involvement of crustal material in magma genesis throughout E Sunda/ Banda arcs, as far W as Iya in C Flores. Source of He in crustal component unlikely to be terrigenous sediments derived from Australian continent; rather, degassing of Australian continental crust)

Hoogewerff, J.A. (1999)- Magma genesis and slab-wedge interaction across an island-arc collision zone, East Sunda Arc, Indonesia. Geologica Ultraiectina 178, p. 1-199. (*Ph.D. Thesis University of Utrecht*)
(online at: http://dspace.library.uu.nl/handle/1874/272287)
(Study of Sr, Nd, Pb, Ra, Th and U isotopes and major and trace elements from five active and >10 inactive volcanic centres in Adonara-Lomblen-Pantar Sector of E Sunda Arc (E of Flores and W of volcanically inactive Alor-Wetar sector). Both mantle components (depleted Indian Ocean mantle) and subduction-related components (subducted continental material, which changes in composition from E to W (Indian Ocean pelagic sediment and detrital Australian shelf sediment?, and crystalline Australian continental crust) contribute to magma generation. Active Adonara-Pantar Sector volcanoes display strongest sedimentary or even 'continental' signal of Sunda-Banda Arcs volcanoes. Volcanic activity in Alor-Wetar sector started at least 12 Ma ago as intra-oceanic are, and ceased about 3 Ma ago)

Hoogewerff, J.A., M.J. van Bergen, P.Z. Vroon, J. Hertogen, R. Wortel et al. (1997)- U-series, Sr-Nd-Pb isotope and trace-element systematics across an active island arc-continent collision zone: implications for element transfer at the slab-wedge interface. Geochimica Cosmochimica Acta 61, 5, p. 1057-1072.
(Isotopic and trace element data consistent with three-component mixing whereby slab-derived hydrous fluid and siliceous melt both added to sub-arc mantle source. Hydrous fluid largely controls input in shallow part of subduction zone, siliceous melt dominates flux at deeper levels. Sedimentary material primary source of both)

Hutabarat, J. (1999)- Potassic and ultra-potassic rocks petrology of Gunung Ringgit, Situbondo-Bondowoso, East Java. Proc. 28th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 1, p. 103-112.

Hutchison, C.S. (1975)- Correlation of Indonesian active volcano geochemistry with Benioff zone depth. Geologie en Mijnbouw 54, 3-4, p. 157-168.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0ak95aEQ5THJ5TWc/view)

(Indonesian arc >6000 km long from N Sumatra to Molucca Sea. Majority of products augite-hypersthene andesite or basalt. Leucite in volcanoes over deepest seismic contours. Overall increase in K and alkali % with Benioff zone depth, but rather high variability)

Hutchison, C.S. (1976)- Indonesian active volcanic arc: K, Sr, and Rb variation with depth to the Benioff zone. Geology 4, p. 407-408.
(K, Sr, and Rb vary with depth to Benioff zone. K2O increase most useful for Benioff zone depth prediction)

Hutchison, C.S. (1977)- Banda Sea volcanic arc: some comments on the Rb, Sr and cordierite contents. Warta Geologi (Newsl. Geol. Soc. Malaysia) 3, 2, p. 27-35.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1977002.pdf)
(Unusually high Rb/Sr ratios in volcanic rocks and cordierite in rhyolite at Tanjong Illipoi (Wetar) indicate of strong continental crustal influence in source of volcanic rocks. Romang also higher Rb/Sr ratios than active volcanic arc. Wetar very different from other islands of Banda Arc because of abundant light grey rhyolite and dacite. This extinct, eroded and uplifted portion of Banda volcanic arc N of Timor affected by subducted Australian continental Plate. Cordierite in rocks of Ambon also imply continental crustal basement in N part of Banda Arc)

Hutchison, C.S. (1981)- Review of the Indonesian volcanic arc. In: A.J. Barber & S. Wiryosujono (eds.) The geology and tectonics of Eastern Indonesia. Proc. CCOP-IOC SEATAR Working Group Mtg., Bandung 1979, Geol. Res. Dev. Centre (GRDC), Bandung, Spec. Publ. 2, p. 65-80.
(Indonesian volcanic arc extends for 6000km from N Sumatra to Molucca Sea. Volcanism mainly calk-alkaline-high-K calc-alkaline with minor tholeiite and shoshonite. Lavas predominantly andesitic. Good correlation between depth of underlying Benioff zone of subduced Indian Ocean Plate and K2O content and Sr isotopes, indicating magma is of mantle origin. E-ward increase of 87Sr/86Sr from W Java to Bali suggests transition from continental to oceanic basement. Volcanoes above deep seismic contours are shoshonitic. Extinct arc of W Sulawesi also shoshonitic. Pliocene cordierite dacite-granites very high Sr ratios, consistent with continental origin. And much more; JTvG)

Hutchison, C.S. (1982)- Indonesia. In: R.S. Thorpe (ed.) Andesites. John Wiley, New York, p. 207-224.
(Review of Indonesian volcanic arc, similar to Hutchison (1981))

Isnawan, D. & S. Bronto (1997)- Penentuan sumber erupsi batuan gunungapi Tersier dan implikasinya terhadap bahan tambang. Proc. 26th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, p. 226-236.
('Determination of source of eruption of Tertiary volcanic rocks and their implications for minerals')

Jezek, P.A. (1978)- Submarine volcanoes in Banda and Celebes Seas. Berita Direktorat Geologi, Geosurvey Newsl. 10, 20, p. 254-256.

Jezek, P.A. & C. Hutchison (1978)- Banda arc of eastern Indonesia: petrology and geochemistry of the volcanic rocks. Bull. Volcanology 41, 4, p. 586-608.
(Banda Arc volcanics major geochemical discontinuity near S end of Weber Deep. Alkali contents and Sr isotope ratios suggest Nila-Teun-Damar volcanic group distinct from Banda-Manuk, and Serua transitional. Lavas generally typical of oceanic island arc, ranging from tholeiitic basalt- dacite on SW Ambon and Banda, low-K calc-alkaline andesites on Manuk-Serua, to high-K calc-alkaline andesites on Nila-Teun-Damar-Gunung Api-Romang. Increasing potassium from Banda to Manuk may be related to increasing Benioff Zone depth. Older cordierite dacites (ambonites) on N Ambon must be derived from continental crust, but younger tholeiitic lavas of SW Ambon and Banda may be related to subduction zone dipping S-wards from Seram)

Johnson, R.W. (ed.) (1976)- Volcanism in Australasia. Elsevier Scientific Publ. Co., Amsterdam, p. 1-422.
(28 papers on volcanism of Australia, Indonesia, PNG, Soloman Islands, Tonga, to New Zealand)

Jolis, E.M., V.Troll, F. Deegan, L. Blythe, C. Harris et al. (2012)- Tracing crustal contamination along the Java segment of the Sunda Arc, Indonesia. EGU General Assembly 2012, Vienna, p. 9291. *(Abstract only)*

(Arc magmas crustal contamination can take place in mantle source or as magma traverses upper crust. Source contamination generally considered dominant process, but Java segment of Sunda arc shows increase in 87Sr/86Sr and δ18O and decrease in 143Nd/144Nd values from Krakatau towards Merapi. Volcanoes E of Merapi, where upper crust is thinner, show less crustal input)

Kaehlig, C.B., A. Wight & C. Smith (1996)- Volcanoes of Indonesia, creators and destroyers. Times Editions, Singapore, p. 1-144.

Kamenetsky, V.S., M. Elburg, R. Arculus & R. Thomas (2006)- Magmatic origin of low-Ca olivine in subduction-related magmas: co-existence of contrasting magmas. Chemical Geology 233, p. 346-357.
(Comparison of olivines in mafic, high-Ca subduction-related magmas from Indonesia (S Sulawesi), Solomon Islands, Kamchatka and Lau Basin. Two populations: (1) high-Ca; crystallized from melt that dominantly contributed to whole rock composition. (2) low-Ca; generally interpreted as mantle or lithospheric xenocrysts)

Kandlbauer, J., S. Carey & R. Sparks (2013)- The 1815 Tambora ash fall: implications for transport and deposition of distal ash on land and in the deep sea. Bull. Volcanology 75, 4, p. 1-11.

Kandlbauer, J. & R.S.J. Sparks (2014)- New estimates of the 1815 Tambora eruption volume. J. Volcanology Geothermal Res. 286, p. 93-100.
(Volume estimates of 1815 Tambora eruption, Sumbawa, re-analysed. Total volume ~41 ± 4 km3 Dense Rock Equivalent (23 ± 3 km3 ash fall and 18 ± 6 km3 pyroclastic flows))

Katili, J. & A. Sudradjat (1984)- The devastating 1983 eruption of Colo volcano, Una Una island, Central Sulawesi, Indonesia. Proc. Reg. Conf. Min. Hydrocarbon Res. SE Asia, p. 467-482.

Katili, J.A. & A. Sudradjat (1984)- The devastating 1983 eruption of Colo volcano, Una Una island, Central Sulawesi, Indonesia. Geol. Jahrbuch B75, p. 27-47.
(Colo Volcano on Una-Una, Gulf of Gorontalo, is related to SE dipping subduction of Sulawesi Sea Plate. Devastating pyroclastic flows during 1983 eruption phase, almost entire island swept by nuee ardente, but no casualties due to timely evacuation)

Kemmerling, G.L.L. (1922)- Uit Indien's vulkaanrijk. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 39, 1, p. 1-41.
('From the Indies volcano empire'. Popular description of selected volcanoes and their eruptions on Java and Sumatra)

Kemmerling, G.L.L. (1923)- De vulkanen van den Sangi-Archipel en van de Minahassa. Vulkanologische Mededeelingen (Dienst Mijnbouw Nederlandsch-Indie, Weltevreden), 5, p. 1-157. *(2 vols.)*
('The volcanoes of the Sangi Archipelago and the Minahassa', Molucca Sea, N Sulawesi)

Kemmerling, G.L.L. (1926)- LôArchipel indien centre important de volcanisme. Bull. Volcanologique 3, 7-8, p. 87-98.
(Early overview of volcanism in Indonesian Archipelago. 90 active volcanoes)

Kemmerling, G.L.L. (1929)- Vulkanen van Flores. Vulkanologische Seismologische Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 10, p. 1-138. + Atlas.
('Volcanoes of Flores island')

Kemmerling, G.L.L. (1929)- De actieve vulkanen van den Nederlandsch-Indischen Archipel in 1928/29. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2) 46, 4, p. 468-505.
('The active volcanoes of the Netherlands Indies Archipelago in 1928/29'. 106 known active volcanoes)

Kimberly, P., L. Siebert, J.F. Luhr & T. Simkin (1998)- Volcanoes of Indonesia, v. 1.0. Smithsonian Institution, Washington, Global Volcanism Program, Digital Information Series GVP-1 (CD-ROM).

(Compilation of data and images for modern volcanoes of Indonesia)

Kuenen, P.H. (1933)- Experiments on the formation of volcanic cones (in connection with East Indian volcanic islands). Leidsche Geol. Mededelingen 6, 1, p. 99-118.
(Most strato-volcanoes have concave slope, steep slopes of 20°-40° near crater edge, gradually slope decreasing towards foot in broad flat plain. In volcanic cones in which loose ejecta dominate over lava flows profile tends to be straight line, corresponding to natural angle of repose of materials. Variations in strength of eruption may cause convex slopes, but practically always tend to produce concave profiles. Concavity of most volcanoes attributed to secondary causes)

Kuenen, P.H. (1935)- Contributions to the geology of the East Indies from the Snellius expedition. Part I. Volcanoes. Leidsche Geol. Mededelingen 7, p. 273-334.
(online at: www.repository.naturalis.nl/document/549556)
(Brief descriptions and sketches of volcanoes on E Java, Gunung Api, Serua and Tidore, based on observations during 15-month Snellius Expedition (1929-1930) to Indonesia)

Kuenen, P.H. (1945)- Volcanic fissures, with examples from the East Indies. Geologie en Mijnbouw, N.S., 7, 3-4, p. 17-23.
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(Review of volcanic fissures and volcanic lines, with examples of Halmahera, E Java, etc.)

Kuno, H. (1966)- Lateral variation of the basalt magma type across continental margins and island arcs. Bull. Volcanologique 29, p. 195-222.
(Quaternary basalts in Circum-Pacific belt and in Indonesia change from more alkaline olivine lavas farther from trench (deeper source), to more tholeiitic closer to trench (ocean side, shallower source))

Kurnio, H., S. Lubis & H.C. Widi (2015)- Submarine volcano characteristics in Sabang waters. Bull. Marine Geol. 30, 2, p. 85-96.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/78/79)
(Weh Island with Sabang City at NW tip of Sumatra with volcanic cone morphology and with fumaroles, on surrounding seafloor and coastal area vents. Fumarole vents associated with common rare earth elements (REE). Co-existence between active Sumatra fault of current volcanism produce hydrothermal mineralization)

Kurnio, H., I. Syafri, A. Sudradjat & M.F. Rosana (2016)- Sabang submarine volcano Aceh, Indonesia: review of some trace and Rare Earth Elements abundances produced by seafloor fumarole activities. Indonesian J. Geoscience 3, 3, p. 173-183.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/247/224)
(Rare earth elements at fumaroles surrounding submarine craters off Sabang island)

Kurnio, H. & E. Usman (2016)- Rare Earth Elements vapor transport by fumaroles in the post caldera complex of Weh Island submarine volcano, Aceh Province, Northern Sumatra. Bull. Marine Geol. 31, 2, p. 99-108.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/317/278)
(Fumaroles and solfataras are REE vapor transport agents in Weh Island submarine volcano, Aceh. Central part of Weh submarine volcano most active REE deposition, where normal faults and N-S grabens acted as channel for hydrothermal fluids reaching seafloor surface)

Kushendratno, J.S. Pallister, Kristianto, F.R. Bina (2012)- Recent explosive eruptions and volcano hazards at Soputan volcano- a basalt stratovolcano in north Sulawesi, Indonesia. Bull. Volcanology 74, 7, p. 1581-1609.
(Soputan high-alumina basalt stratovolcano in N Sulawesi-Sangihe magmatic arc. Adjacent to Quaternary Tondono Caldera, but magmas distinct from caldera and other arc magmas. Soputan produces explosive eruptions with high ash plumes and pyroclastic flows. Open-vent-type volcano that taps basalt magma from greater depth, in arc-mantle wedge)

Kusumadinata, K. (Ed.) (1975)- 125 years of geological research in Indonesia (1850-1975). Berita Direktorat Geologi (Geosurvey Newsletter), Bandung 8, 2, p.
(In Indonesian. Includes chapter on biography of R.W. van Bemmelen)

Kusumadinata, K., R. Hadian, S. Hamidi & L.D. Reksowirogo (1979)- Data dasar gunung api Indonesia. Direkt. Volkanologi, Bandung, p. 1-819.
('Basic data of Indonesian volcanoes'. Descriptions of 67 Indonesian 'A-type' volcanoes, with eruptions in historical time: 10 in Sumatra/ Sunda Strait, 17 on Java, 5 in Bali/ W Nusateggara, 13 in E Nusateggara, 7 in Banda Islands, 11 in Sulawesi/ Sangir islands and 4 in N Moluccas. Eight aditional known A-type volcanoes not yet described)

Lagmay, A.M.F. & W. Valdivia (2006)- Regional stress influence on the opening direction of crater amphitheaters in Southeast Asian volcanoes. J. Volcanology Geothermal Res. 158, p. 139-150.
(Holocene volcanoes in Philippines and Indonesia studied to determine relationship between regional maximum horizontal stress and opening direction of volcanic amphitheatre craters. Opening of craters occurs at acute angle relative to max. stress direction)

Lavigne, F., J.P. Degeai, J.C. Komorowski, S. Guillet, V. Robert, P. Lahitte, C. Oppenheimer, M. Stoffel, C.M. Vidal, I. Pratomo et al. (2013)- Source of the great A.D. 1257 mystery eruption unveiled, Samalas volcano, Rinjani Volcanic Complex, Indonesia. Proc. National Academy Sciences USA 110, 42, p. 16742-16747.
(online at: www.pnas.org/content/110/42/16742.full.pdf+html)
(Polar ice cores with evidence of colossal volcanic eruption in 1257 or 1258 A.D., most probably in tropics, which yielded largest volcanic sulfur release to stratosphere of the past 7000 yrs. Likely source is Samalas volcano, adjacent to Mt Rinjani on N Lombok Island, where >40 km3 of tephra were deposited. Three principal pumice fallout deposits in region and thick pyroclastic flow deposits at coast, 25 km from source. Pre-caldera topography of Mt Samalas calculated as ~4200m above sea level. Glass geochemistry of pumice matches shards in Arctic and Antarctic ice cores (see also Vidal et al. 2015))

Liu, Z., C. Colin & A. Trentesaux (2006)- Major element geochemistry of glass shards and minerals of the Youngest Toba Tephra in the southwestern South China Sea. J. Asian Earth Sci. 27, p. 99-107.
(4cm thick ash layer in Core MD01-2393 from SW S China Sea at Marine Isotope Stage 4-5 transition at ~74 ka. Morphology and geochemistry of glass shards confirm origin from Youngest Toba eruption, N Sumatra)

Luais, B. (1987)- Petrologie et geochimie (elements trace et rapports isotopiques du Sr) du magmatisme associe aux zones de subduction. Examples du Bassin Mediterraneen et des Isles de la Sonde (Merapi, Java). Thesis, Universite de Montpellier (Documents Travaux Centre Geol. Geoph. Montpellier, 9), p. 1-237.
('Petrology and geochemistry (trace elements and Sr isotopic ratios) of magmatism associated with subduction zones: examples from the Mediterraneen Basin and the Sunda Islands (Merapi, Java)')

Lundberg, J. & D.A. McFarlane (2012)- A significant middle Pleistocene tephra deposit preserved in the caves of Mulu, Borneo. Quaternary Research 77, 3, p. 335-343.
(Fluvially transported tephra in caves of Mulu, Sarawak, not Younger Toba Tephra, but older (before ~125 or before ~156 ka. Most likely location of source in Philippines)

MacLeod, N. (1989)- Sector-failure eruptions in Indonesia volcanoes. Geologi Indonesia (IAGI) 12, 1 (Katili Volume), p. 563-601.
(Study of 54 volcano craters that erupted with sector failures)

Marinelli, G. & H. Tazieff (1968)- LôIgnimbrite et la caldera de Batur (Bali, Indonesie). Bull. Volcanologique 32, p. 89-120.
('The ignimbrite and the Batur caldera (Bali, Indonesia)'. Batur caldera result of collapse of strato-volcano following outpouring of an ignimbritic unit (ash flow) covering N and S flanks of Batur ~22,000 years ago. Island of Bali tilted N-wards around its long axis. Outflow of ignimbrite followed long period of andesitic

activity, preceded and followed by flows of bandaite, a leucocratic lava with highly basic plagioclase (~80-90% An), probably generated, at shallow dephts by assimilation of aluminous strata by basaltic magma)

McGeary, S., A. Nur & Z. Ben-Avraham (1985)- Spatial gaps in arc volcanism: the effect of collision or subduction of oceanic plateaus. Tectonophysics 119, 1, p. 195-221.
(Many volcanic chains worldwide show gaps in the pattern of active volcanoes, which can often be related to collisions of oceanic plateaus. Examples from Indonesia include the Wetar gap of Banda Arc (due to Australia collision S of Timor region) and New Guinea)

Metrich, N., C.M. Vidal, J.C. Komorowski, I. Pratomo, A. Michel, N. Kartadinata, O. Prambada, H. Rachmat & Surono (2017)- New insights into magma differentiation and storage in Holocene crustal reservoirs of the Lesser Sunda Arc: the Rinjani- Samalas Volcanic Complex (Lombok, Indonesia). J. Petrology 58, 11, p. 2257-2284.
(Mineralogy and chemistry of magmas erupted over last ~12 kyr at Rinjani-Samalas volcanic complex on Lombok. Calc-alkaline series, moderately rich in K2O. Pre-caldera stage bimodality of magmas (basalt-trachydacite); post-caldera magmatism basaltic andesites. Possibly result of mixing between basalt and trachydacite melts. AD 1257 caldera-forming eruption large volume of trachydacitic magma)

Neumann van Padang, M. (1930)- Het vulkaaneiland Paloeweh en de uitbarsting van den Rokatinda in 1928. Vulkanologische Seismologische Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 11, p. 1-92.
('The volcanic island Paluweh and the eruption of the Rokatinda in 1928'. With petrographic descriptions of rocks by Esenwein)

Neumann van Padang, M. (1951)- Catalogue of the active volcanoes of the world including solfatara fields. Part 1: Indonesia. Int. Volcanological Assoc., Napoli, p. 1-271.

Neumann van Padang, M. (1959)- Changes in the top of Mount Ruang (Indonesia). Geologie en Mijnbouw 21, 4, p. 113-118.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QTJrWms0Rmd6cFk/view)
(Activity and changes in shape of Mt Ruang in S part of Sangihe Archipelago since 1808)

Neumann van Padang, M. (1971)- Two catastrophic eruptions in Indonesia, comparable with the Plinian outburst of the volcano of Thera (Santorini) in Minoan time. Acta First Int. Scient. Congress on the volcano of There, p. 51-63.
(Comparison of Plinian eruption with enormous volumes of pumice of Santorini with those of Tambora (Sumbawa, 1815) and Krakatoa (W of Java, 1883). Krakatoa and Tambora eruptions lasted only two days and led to collapse of tall volcanic edifices)

Neumann van Padang, M. (1983)- History of the volcanology in the former Netherlands East Indies. Scripta Geologica 71, p. 1-76.
(online at: www.repository.naturalis.nl/document/148698)
(History of volcano research in Indonesia, with listing of active volcanoes/ activity from late 1800's to ~1930)

Newhall, C.G. & D. Dzurisin (1988)- Historical unrest at large calderas of the world. U.S. Geol. Survey (USGS) Bull. 1855, 2 vols., 1108p.
(online at: http://pubs.usgs.gov/bul/1855/report.pdf)
(Global review of Recent activity of volcanoes with large calderas. With sizeable chapters on Indonesia (p. 255-351) and Papua New Guinea (p. 197-244))

Nho, E.Y., M.F. Le Cloarec, B. Ardouin & W.S. Tjetjep (1996)- Source strength assesment of volcanic trace elements emitted from the Indonesian arc. J. Volcanology Geothermal Res. 74, p. 121-129.
(Estimates of emission of volatile metals in volcanic sources of Indonesian Arc. SO2 emission 3.5 × 106 tons/ year, or ~20% of the annual worldwide volcanic flux of SO2. Trace metal (210Po, Pb, Bi, Cd, Zn and Cu) fluxes ~5-30% of global volcanic flux, i.e. low relatively low)

Nicholls, I.A. & D.J. Whitford (1976)- Primary magmas associated with Quaternary volcanism in the western Sunda arc. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 77-90.
(Pleistocene- Recent lavas of W Sunda Arc dominated by basaltic andesite and andesite, with average 55% silica. Most lavas have Mg/Mg +Fe2 values too low to be unmodified products of partial melting of peridotitic mantle. Further differentiation to produce andesitic- dacitic magmas probably at rel. low pressure)

Nicholls, I.A. & D.J. Whitford (1978)- Geochemical zonation in the Sunda volcanic arc, and the origin of K-rich lavas. Bull. Australian Soc. Exploration Geophysicists (ASEG) 9, p. 93-98.
(*Sunda volcanic arc good example of variation in geochemistry of lavas across island arc. In addition to correlation between K2O/SiO2 ratios and depths to Benioff Zone in Pleistocene-Recent-lavas of Java, there are well-defined relationships for 'incompatible' elements (Rb, Cs, Ba) and light rare earth elements. Volcanic centres of Java indicate progressive change in conditions of primary basaltic magma production across arc)*

Nicholls, I.A., D.J. Whitford, K.L. Harris & B. Taylor (1980)- Variation in the geochemistry of mantle sources for tholeiitic and calc-alkaline mafic magmas, western Sunda volcanic arc, Indonesia. Chemical Geology 30, p. 177-199.
(Quaternary lavas of normal island-arc basalt-andesite-dacite association in Java-Bali range from tholeiitic series over Benioff-zone depths of ~150 km to high-K calc-alkaline series over Benioff-zone depths of 250km. More abundant and diverse calc-alkaline lavas over intermediate Benioff-zone depths. Basaltic lavas become slightly more alkaline with increasing depth to the Benioff zone. Levels of incompatible minor and trace elements (K, Rh, Cs, Ba, Nb, U, Th, light REE) show increase of almost order of magnitude)

Ninkovich, D. (1979)- Distribution, age and chemical composition of tephra layers in deep-sea sediments off western Indonesia. J. Volcanology Geothermal Res. 5, p. 67-86.
(Volcanic ash layers in deep-sea sediments of NE Indian Ocean, adjacent to W Indonesian range in age from Late Miocene- Recent. Three provinces: (1) large Late Miocene and younger rhyolitic tephra province off Sumatra; (2) restricted dacitic province off Sunda Strait and W Java; and (3) andesitic province off E Java and Lesser Sunda Islands. Chemical composition of tephra layers in each province remains constant with time. E-ward decrease in silica content in tephras coincides with similar decrease in Indonesian arc lavas. High silica content in Sumatra linked to thick pre-Cenozoic crust. E of Sumatra crust is Cenozoic and thin)

Ninkovich, D. & W.L. Donn (1976)- Explosive Cenozoic volcanism and climatic implications. Science 194, 4268, p. 899-906.
(Study of volcanogenic material in DSDP and other cores from E and SE Asia. Indonesia Cenozoic magmatic history two major phases: first extended into Ey Miocene, second began in Late Miocene and lasted until today. With map of Indian Ocean areas covered with rhyolitic and andesitic ash layers SW of Sumatra and S of Java)

Ninkovich, D. & W.L. Donn (1977)- Cenozoic explosive volcanism related to East and Southeast Asian arcs. In: M. Talwani & W. Pitman (eds.) Island arcs, deep sea trenches and back-arc basins, American Geophys. Union (AGU), Maurice Ewing Ser. 1, p. 337-347.
(Study of history of Cenozoic explosive volcanism using DSDP and piston core data from Indian Ocean off Indonesia and W Pacific Ocean)

Oppenheimer, C. (2002)- Limited global change due to the largest known Quaternary eruption, Toba ~74kyr BP?. Quaternary Science Reviews 81, p. 1593-1609.
(≈74 kyr BP 'super-eruption' of Toba volcano in Sumatra is largest known Quaternary eruption. Possible 6 yr duration 'volcanic winter' following eruption has been proposed, but previous estimates of globally averaged surface cooling of 3-5°C after eruption probably too high; closer to 1°C)

Oppenheimer, C. (2003)- Climatic, environmental and human consequences of the largest known historic eruption; Tambora Volcano (Indonesia) 1815. Progress in Physical Geography 27, 2, p. 230-259.

Pacey, A., C.G. Macpherson & K.J.W. McCaffrey (2013)- Linear volcanic segments in the central Sunda Arc, Indonesia, identified using Hough Transform analysis: implications for arc lithosphere control upon volcano distribution. Earth Planetary Sci. Letters 369-370, p. 24-33.
(In Sunda Arc most volcanoes define four en echelon, linear segments, each of 500-700 km length. Volcanoes of Java that do not lie on these segments either formed at early stage in history of arc and erupted anomalous magma, or lie along other mapped structures)

Palfreyman, W.D., R.W. Johnson, R.J.S. Cooke & R.J. Bultitude (1986)- Volcanic activity in Papua New Guinea before 1944: an annotated bibliography of reported observations. Bureau Mineral Res. Geol. Geoph., Canberra, Report 254, p. 1-194.
(online at: https://d28rz98at9flks.cloudfront.net/15175/Rep_254.pdf)
(Annotated bibliography of 750 references on volcanoes and volcanic activity in PNG before 1944)

Paris, R., A.D. Switzer, M. Belousova, A. Belousov, B. Ontowirjo, P.L. Whelley & M. Ulvrova (2014)- Volcanic tsunami: a review of source mechanisms, past events and hazards in Southeast Asia (Indonesia, Philippines, Papua New Guinea). Natural Hazards 70, 1, p. 447-470.
(Many volcanoes in SE Asia potentially tsunamigenic and present hazard to rapidly developing coasts)

Pearce, N.J.G., J.A. Westgate, E. Gatti, J.N. Pattan, G. Parthiban & H. Achyuthan (2014)- Individual glass shard trace element analyses conýrm that all known Toba tephra reported from India is from the c. 75-ka Youngest Toba eruption. J. Quaternary Sci. 29, 8, p. 729-734.
(Glass shards from all Toba tephra samples from India thus far analysed, same multi-population composition as Young Toba Tuff and are products of ~75-ka Youngest Toba eruption. Composition different from Oldest Toba Tuff (OTT) in Layer D from ODP site 758 (~800 ka))

Petroeschevsky, W.A. (1949)- A contribution to the knowledge of the Gunung Tambora (Sumbawa). Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap, Amsterdam, 66, p. 688-703.
(Description of Tambora volcano on Sumbawa. Considered to be extinct until major 1815 eruption, which reduced it in height from ~4000- 2850m, produced ~150 km3 of ash, and directly and indirectly killed 92,000 people)

Petroeschevsky, W.A. & T.H.F. Klompe (1950)- Het vulkanologisch onderzoek in Indonesia. In: Kon. Nat. Ver. Indonesia, Een eeuw natuurwetenschap in Indonesia 1850-1950, Vorkink, Bandung, p. 51-70.
('History of volcanological investigations in Indonesia', in 'A century of natural sciences in Indonesia 1850-1950' book)

Pratomo, I. (2006)- Klasifikasi gunung api aktif Indonesia, studi kasus dari beberapa letusan gunung api dalam sejarah. J. Geologi Indonesia 1, 4, p. 209-227.
(New classification of Indonesian active volcanoes: Tambora (caldera formation), Merapi (lava dome), Agung (open crater), Papandayan (sector failure), Batur (post-caldera activities), Sangeangapi (lava flows) and Anak Krakatau types (volcano islands and submarine volcano))

Rachmat, H. & I. Mujitahid (2003)- Gunungapi Nusa Tenggara Barat. Indon. Assoc. Geol. (IAGI), Spec. Publ. 1, p. 1-141.
('Volcanoes of West Nusa Tenggara')

Rampino, M.R. & S. Self (1982)- Historic eruptions of Tambora (1815), Krakatau (1883) and Agung (1963), their stratospheric aerosols, and climatic impact. Quaternary Research 18, 2, p. 127-143.
(Decreases in surface temperatures after eruptions of Tambora, Krakatau and Agung were of similar magnitude, although amounts of dust and volatiles injected into stratosphere differed greatly. Large amounts of fine ash and volatiles dispersed into upper atmosphere by Krakatau and Tambora; Agung eruption in 1963 was smaller, but injected dust and volatiles into stratospheric aerosol layer more directly. Agung eruption relatively rich in SO2 and Cl. Relative amounts of fine ash produced by Tambora, Krakatau and Agung eruptions

estimated at 150: 20: 1, atmospheric sulfate aerosols ~7.5: 3: 1. Decreases in surface T after volcanic eruptions mainly result of sulfate aerosols, rather than silicate dust)

Ranneft, T.S.M. (1979)- Segmentation of island arcs and application to petroleum geology. J. Petroleum Geol. 1, 3, p. 35-53.
(Island arcs commonly depicted as curved or sinuous, but most are composed of straight segments whose trend changes suddenly at hinge or boundary zones (multiple transverse faults). Fracture system may be related to structural, morphological, or movement of underthrusting slab, or movement in backdeep or overthrusting sheet. Transverse structural systems had effect on petroleum accumulations of island arc regions, both from stratigraphic and structural viewpoint. Examples of modern Indonesian arc system)

Reubi, O. & A. Nicholls (2004)- Variability in eruptive dynamics associated with caldera collapse: an example from two successive eruptions at Batur volcanic field, Bali, Indonesia. Bull. Volcanology 66, 2, p. 134-148.
(Batur volcanic field in Bali two caldera-forming eruptions, at 29,300 and 20,150 years BP., resulting in deposition of dacitic ignimbrites. Ubud Ignimbrite covers most of S Bali and consists dominantly of pyroclastic flow with minor pumice fall deposits. Gunungkawi Ignimbrite more limited extent, occurs only in central S Bali)

Reubi, O. & A. Nicholls (2004)- Magmatic evolution at Batur volcanic field, Bali, Indonesia: petrological evidence for polybaric fractional crystallization and implications for caldera-forming eruptions. J. Volcanology Geothermal Res. 138, p. 345-369.
(Batur volcanic field in Bali underwent complex evolution that comprised three periods of building and two major caldera-forming eruptions)

Reubi, O. & A. Nicholls (2005)- Structure and dynamics of a silicic magmatic system associated with caldera-forming eruptions at Batur Volcanic Field, Bali, Indonesia. J. Petrology 46, 7, p. 1367-1391.
(online at: http://petrology.oxfordjournals.org/content/46/7/1367.full.pdf+html)
(Quaternary Batur volcanic field in Bali ~150 km above Benioff zone and adjacent to active Agung volcano and extinct or dormant Bratan caldera. Two caldera-forming eruptions and broad range of compositions from low-SiO2 andesite to high-SiO2 dacite. Earliest volcanism was building of Penulisan basaltic-dacitic stratovolcano starting at least at ~510 ka. Collapse of first caldera associated with eruption of dacitic Ubud ignimbrite at 29,300 yrs BP. After formation of Bunbulan lava-dome complex collapse ofe second caldera, with eruption of Gunungkawi Ignimbrite at 20,150 yrs BP. Followed by 1700 m high, basaltic andesite Batur stratovolcano)

Rittmann, A. (1953)- Magmatic character and tectonic position of the Indonesian volcanoes. Bull. Volcanology 14, p. 45-58.
(Review of chemical compositions of magmas of Indonesian active volcanoes. Volcanoes classified as (1) Calc-alkaline (= Pacific; 30/ 91%), (2) Alkaline (= Atlantic; 2; 6%) and Potassic (= Mediterranean; 1/ 3%). Calc-alkaline character of magmas of active volcanoes decreases regularly in direction from foredeep to hinterland, becoming alkaline in hinterland itself. Also, at single volcanoes calc-alkaline character decreases with time, 'confirming migration of axis of orogen towards foredeep')

Rohiman, Y., I G.B.E. Sucipta, M. Abdurrachman & S.R.A. Sugiono (2016)- Petrogenesis of Malabar Volcano, West Java, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 295-300.

Romeur, M. (1991)- Series magmatiques arc et arriere-arc de la Sonde: nature des sources impliquees (elements en trace et isotopes Sr-Nd-Pb). Doct. Thesis Universite de Bretagne Occidentale, Brest, p. 1-451. *(Unpublished)*
(online at: http://archimer.ifremer.fr/doc/00034/14540/11815.pdf)
('Arc and back-arc magmatic series of Sunda arc: nature of involved sources'. Three geochemical zones: arc, backarc and an intermediate zone. Focus on back-arc potassic basalts of Sumatra (Jambi, Sukadana) and Karimunjawa islands)

Rubin, K.H., G.E. Wheller, M.O. Tanzer, J.D. MacDougall, R. Varne & R. Finkel (1989)- 238U decay series systematics of young lavas from Batur volcano, Sunda Arc. J. Volcanology Geothermal Res. 38, p. 215-226.

Ryu, S., H. Kitagawa, E. Nakamura, T. Itaya & K. Watanabe (2013)- K-Ar analyses of the post-caldera lavas of Bratan volcano in Bali Island, Indonesia- Ar isotope mass fractionation to light isotope enrichment. J. Volcanology Geothermal Res. 264, 4, p. 107-116.
(Post-caldera lavas of Bratan volcano on Bali are basalts to andesites and typical of subduction-related tectonic setting. K-Ar ages ~14, 31, 55, 66, 94 and 125 ka)

Saing, U.B., P. Bani & Kristianto (2014)- Ibu volcano, a center of spectacular dacite dome growth and long-term continuous eruptive discharges. J. Volcanology Geothermal Res. 282, p. 36-42.
(Ibu volcano on NW Halmahera one of most active volcanoes in Indonesia. Resumed activity in 1998. Lava dome of dacite composition is developing at rate of 3182 m³ per day)

Scher, S. (2012)- Fumarolic activity, acid-sulfate alteration and high sulfidation epithermal precious metal mineralization in the crater of Kawah Ijen Volcano (Java, Indonesia). M.Sc. Thesis McGill University, Montreal, p. 1-114.
(online at: digitool.library.mcgill.ca/dtl_publish/7/110439.html)

Scher, S., A.E. Williams-Jones & G. Williams-Jones (2013)- Fumarolic activity, acid-sulfate alteration, and high sulfidation epithermal precious metal mineralization in the crater of Kawah Ijen Volcano, Java, Indonesia. Economic Geology 108, 5, p. 1099-1118.
(Kawah Ijen crater in E Java ~1 km in diameter, and hosts one of world's largest hyperacidic lakes. With small actively degassing solfatara field, surrounded by much larger area of acid-sulfate alteration. Area exposed after phreatomagmatic eruption in 1817, which excavated crater to depth of 250m. Magmatic vapors caused (uneconomic) high sulfidation epithermal Cu-Au-Ag ore deposits at very shallow depth)

Schulz, H., K.C. Emeis, H. Erlenkeuser, U. von Rad & C. Rolf (2002)- The Toba volcanic event and interstadial/stadial climates at the marine isotopic stage 5 to 4 transition in the northern Indian Ocean. Quaternary Research 57, 1, p. 22-31.
(Toba volcanic event documented in marine sediment cores from NE Arabian Sea. Distinct concentration spikes and ash layers of rhyolithic volcanic shards near marine isotope stage 5-4 boundary with chemical composition of 'Youngest Toba Tuff'. Toba event between two warm periods lasting few millennia. Toba had only minor impact on evolution of low-latitude monsoonal climate on centennial to millennial time scales)

Self, S., R. Gertisser, T. Thordarson, M.R. Rampino & J.A. Wolff (2004)- Magma volume, volatile emissions, and stratospheric aerosols from the 1815 eruption of Tambora. Geophysical Research Letters 31, L20608, p. 1-4.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2004GL020925/epdf)
(New estimates for mass of magma and aerosol generated by Tambora in 1815: 30 -33 km3 magma, 53-58 Tg SO2, and 93-118 Tg sulfate aerosols. Aerosol cloud distributed globally, but more in S than in N Hemisphere)

Self, S. & M.R. Rampino (2012)- The 1963-1964 eruption of Agung Volcano (Bali, Indonesia). Bull. Volcanology 74, 6, p. 1521-1536.
(On largest volcanic eruption in Indonesia since Krakatoa in 1883. Early lava flow followed by two explosive phases. Two related but distinctly different magma types: porphyritic basaltic andesite and andesite)

Sigurdsson, H. & S. Carey (1989)- Plinian and co-ignimbrite tephra fall from the 1815 eruption of Tambora volcano. Bull. Volcanology 51, p. 243-270.
(Deposits of April 1815 Tambora eruption sequence starting with four widespread ash fall layers, locally overlain by up to eight pyroclastic flow deposits. Wioth isopach maps of F1, F2, F3 and F4 Plinian tephra layers. F-5 deposit is co-ignimbrite ash fall, generated largely during entrance of pyroclastic flows into ocean. Large volume of F-5 ash requires eruption of 50 km3)

Sigurdsson, H. & S. Carey (1992)- Eruptive history of Tambora volcano, Indonesia. In: E.T. Degens, H.K. Wong & M.T. Zen (eds.) The sea off Mount Tambora. Mitteilungen Geol.-Palaont. Inst. Universitat Hamburg 70, p. 187-206.

Sigurdsson, H. & S. Carey (1992)- The eruption of Tambora in 1815: environmental effects and eruption dynamics. In: C.R. Harington (ed.) The year without a summer? World climate in 1816. Canadian Museum of Nature, Ottawa, p. 16-45.

Situmorang, T. & K.A.S. Astadiredja (1983)- Volkanistratigrafi suatu konsep pemetaan geologi gunungapi Kuarter. Proc. 12th Ann. Conv. Indon. Assoc. Geol. (IAGI), p. 189-199.
('Volcanostratigraphy, some mapping concepts of the geology of Quaternary volcanoes')
(Lake Toba ash event (75 ka; ~20 cm thick) and Australasian tektite layer (0.7 Ma; near Brunhes/Matuyama magnetic reversal) identified in Hole 758C, Indian Ocean W of N Sumatra)

Smit, J., A.J.M van Eijden & S. Troelstra (1991)- Analysis of the Australasian microtektite event, the Toba Lake event, and the Cretaceous/Paleogene boundary, eastern Indian Ocean. In: J. Weissel et al. (eds.) Proc. Ocean Drilling Program (ODP), Scient. Results, College Station, 121, p. 489-503.
(online at: www-odp.tamu.edu/publications/121_SR/VOLUME/CHAPTERS/sr121_25.pdf)
(Lake Toba ash event (75,000 yrs ago) recovered in Hole 758C, had minor influences on foraminiferal populations. Australasian tektite event (just below Brunhes/Matuyama magnetic reversal at ~0.7 Ma) probably had some influence on foraminiferal ecology, because larger specimens become scarce just above microtektite layer. Cretaceous-Paleogene boundary of Hole 752B does not show obvious anomalous trace-element concentrations)

Soeria-Atmadja, R., R.C. Maury, H. Bellon & J.L. Joron (1985)- The occurrence of back-arc basalts in Western Indonesia. Proc. 14th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, p. 125-132.
(Back-arc volcanics, behind Sunda Arc and different composition: primitive basalts resembling basalts from extensional environments. Sukadana in S Sumatra volcanics are Quaternary in age, Karimunjawa in C Java Sea Latest Miocene- Pliocene 6.5- 1.8 Ma)

Soeria-Atmadja, R., Y. Sunarya, Sutanto & Hendaryono (1998)- Epithermal gold-copper mineralization associated with Late Neogene magmatism and crustal extension in the Sunda- Banda arc. Bull. Geol. Soc. Malaysia 42, p. 257-268.
(online at: www.gsm.org.my/products/702001-100841-PDF.pdf)
(Majority of gold-copper mineralization along Sunda- Banda arc low-sulphide- epithermal, related to Late Neogene eruptions of fine silicic/acidic pyroclastics of calc-alkaline affinity. Rel. wide distribution of Late Miocene- Pliocene acidic tuffs on Java, possibly related to caldera collapse or graben subsidence)

Soeria-Atmadja, R., Y. Sunarya, Sutanto & Hendaryono (2001)- Epithermal gold-copper mineralization, Late Neogene calc-alkaline to potassic calk-alkaline magmatism and crustal extension in the Sunda- Banda arc. In: G.H. Teh et al. (eds.) Proc. Geol. Soc. Malaysia Ann. Geol. Conf., Pangkor 2001, p. 39-46.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2001_07.pdf)
(Similar to Soeria-Atmadja, Sunarya et al. 1998)

Soeria-Atmadja, R., S. Suparka, C. Abdullah, D. Noeradi & Sutanto (1998)- Magmatism in western Indonesia, the trapping of the Sumba Block and the gateways to the east of Sundaland. J. Asian Earth Sci. 16, 1, p. 1-12.
(Similarities in Late Cretaceous-Paleogene stratigraphy and calc-alkaline magmatism between Sumba, S Sulawesi and SE Kalimantan suggest Sundaland origin for all these areas. S-ward migration of Sumba to present fore-arc position is after Late Cretaceous-Paleocene time)

Stehn, C.E. (1926)- Volcanologic work in the Dutch East Indies during 1923-1926. Proc. 3rd Pan-Pacific Science Congress, Tokyo 1926, p. 718-733.

Stehn, C.E. (1927)- List of active volcanoes in the Netherlands East Indies. Bull. Netherlands East Indian Volcanological Survey, Bandung, 2, p. 15-19.
(Inventory of 103 active volcanoes in Indonesia)

Stehn, C.E. (1928)- De Batoer op Bali en zijn eruptie in 1926. Vulkanologische Seismologische Mededeelingen (Dienst Mijnbouw Nederlandsch-Indie, Bandung) 9, p. 1-65.
('The Batur volcano on Bali and its eruption in 1926')

Stehn, C.E. (1936)- Register of the spots of volcanic activity in the Netherlands Indies. Bull. Netherlands East Indian Volcanological Survey, Bandung, 75, p. 1-6.
(Count of active volcanoes in Indonesia increased to 125)

Stehn, C.E. (1940)- Vulkanologische onderzoekingen in Oost en Midden Flores. Vulkanologische Seismologische Mededeelingen, Dienst Mijnbouw Nederlandsch-Indie, Bandung, 13, p. 1-82.
('Volcanological surveys of modern volcanoes in East and Central Flores)

Stolz, A.J., R. Varne, G.E. Wheller, J.D. Foden & M.J. Abbott (1988)- The geochemistry and petrogenesis of K-rich alkaline volcanics from the Batu Tara volcano, eastern Sunda arc. volcano, eastern Sunda arc. Contrib. Mineralogy Petrology 98, 3, p. 374-389.
(K-rich alkaline leucite basanite and leucite tephrite eruptives and dykes from Batu Tara volcano (50 km N of Lembata (Lomblen) in Flores Sea) reflect variable amounts of phenocrysts in melts with different compositions. Uninhabited volcano, 748m high, ~230 km above Benioff zone in region of relatively young and thin arc crust)

Stolz, A.J., R. Varne, G.R. Davies, G.E. Wheller & J.D. Foden (1990)- Magma source components in an arc-continent collision zone: the Flores-Lembata sector, Sunda arc, Indonesia. Contrib. Mineralogy Petrology 105, p. 585-601.
(Trace-element and isotope data for 12 active volcanoes from Flores, Adonara, Lembata and Batu Tara in E Sunda arc suggest mantle beneath E Sunda arc is heterogeneous mixture of 3 or 4 major source components: MORB-source or depleted MORB-source, OIB-source and subducted Indian Ocean sediment)

Stothers, R.B. (1984)- The great Tambora eruption in 1815 and its aftermath. Science 224, 4654, p. 1191-1198.
(Tambora 1815 eruption on Sanggar Peninsula of Sumbawa largest and deadliest volcanic eruption in recorded history. Combined volumes of ejecta 40-90 km3 (dense rock equivalent), most probably ejected in 3-24 hours. Sound range was 2600 km, ash range >1300 km, pitch darkness (up to 2 days) over 600 km, pyroclastic flows at least 20 km from summit and tsunami of 1-4m shore height over at least 1200km)

Stothers, R.B. (2004)- Density of fallen ash after the eruption of Tambora in 1815. J. Volcanology Geothermal Res. 134, 4, p. 343-345.
(Tambora 1815 eruption produced largest known ashfall in historical times (~100 km3). Density of fallen ash measured at Makassar (~380 km N of Tambora) shortly after eruption: 636 kg/ m3)

Sucipta, I.G.B.E., I. Takahashima & H. Muraoka (2006)- Morphometric age and petrological characteristics of volcanic rocks from the Bajawa Cinder Cone Complex, Flores, Indonesia. J. Mineralogical Petrological Sci. 101, 2, p. 48-68.
(online at: https://www.jstage.jst.go.jp/article/jmps/101/2/101_2_48/_pdf)
(Bajawa complex 78 cinder cones, grouped into five morphometric ages. Oldest group 0.53-0.73 Ma, Bajawa 02 (0.41- 0.51 Ma), 03 (0.32- 0.40 Ma) and 04 (0.22-0.31 Ma), youngest group 0- 0.20 Ma)

Sudradjat, A. (1975)- Batuan gunungapi dan struktur geologi di Jawa bagian Timur dan Nusatenggara Bagian Barat. Geologi Indonesia (IAGI) 2, 3, p. 19-22.
('Volcanic rocks and geological structures in Eastern Java and west Nusa Tenggara')

Sudrajat, A. (1987)- The Quaternary activities of volcano island arc of Indonesia. In: Geologi Kuarter dan lingkungan hidup, Geol. Res. Development Center, Bandung, Spec. Publ. 7, p. 51-63.

Sukhyar, R. (1982)- Vulkanostratigrafi. Proc. 11th Ann. Conv. Indon. Assoc. Geol. (IAGI), p. 205-212.

Sutawidjaja, I.G. (2009)- Ignimbrite analyses of Batur Caldera, Bali, based on 14C dating. J. Geologi Indonesia 4, 3, p. 189-202.
(online at: www.bgl.esdm.go.id/dmdocuments/jurnal20090304.pdf)
(Batur caldera, NE Bali, is 10 x 7.5 km collapse structure with two stages of collapse at 29.3 ka and 20.1 ka, interrupted by silicic andesite welded ignimbrite and domes)

Sutawidjaja, I.G. (2011)- Effects of the 1815 Tambora eruption to the atmosphere and climate. Majalah Geologi Indonesia (IAGI) 26, 2, p. 65-71.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/763)
(Erupted ash and volcanic aerosols from 1815 Tambora eruption caused global climate changes for 1-2 years. Aerosol cloud spread around Earth in ~3 weeks and caused surface cooling in N Hemisphere of 0.4- 0.7 ° C)

Sutawidjaja, I.G., H. Sigurdsson & L. Abrams (2006)- Characterization of volcanic deposits and geoarchaeological studies from the 1815 eruption of Tambora volcano. J. Geologi Indonesia 1, 1, p. 49-57.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/166)
(Eruption of Tambora on Sumbawa on 5-11 April 1815 generally considered as largest volcanic event in recorded history, leaving caldera 7 km in diameter and 1100m deep. Cataclysmic eruption initiated by Plinian eruption on 5 April, killing >90,000 people on Sumbawa and nearby Lombok, and depositing 40-150 cm of gray pumice and ash on slopes mainly over district W of volcano. On 11 April 8 pyroclastic surges and flows, burying ancient villages to N)

Sutawidjaja, I.S. (1990)- Evolusi kaldera Batur, Bali. Proc. 19th Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 2, p. 165-194.
('Evolution of the Batur caldera, Bali')

Sutawidjaja, I.S., M.F. Rosana, K. Watanabe (2015)- Magma chamber model of Batur Caldera, Bali, Indonesia: compositional variation of two facies, large-volume dacitic ignimbrites. Indonesian J. Geoscience 2, 2, p. 111-124.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/224/196)
(Large Batur caldera is source of two major ignimbrite eruptions of similar dacitic-rhyodacitic composition, with combined volumes of ~84 and 19 km3. Batur magma equilibrated at T of 1100- 1300° C and P of 20 kbar)

Takada, A. (2010)- Caldera-forming eruptions and characteristics of caldera volcanoes in the Sunda Arc, Indonesia. J. Geol. Soc. Japan 116, 9, p. 473-483. *(in Japanese, with English abstract)*
(online at: www.jstage.jst.go.jp/article/geosoc/116/9/116_9_473/_pdf)
(Discussion of caldera-formining eruptions in Sunda Arc (Krakatau, Tambora, Rinjani, etc.))

Takada, A., T. Yamamoto, N. Kartadinata, A. Budianto, A. Munandar, A. Matsumoto, S. Suto & M.C. Venuti (2000)- Eruptive history and magma plumbing system of Tambora volcano, Indonesia. Res. Volc. Hazard Assess. in Asia, ITIT Japan, p. 42-79.

Taneda, S. (1961)- Petrochemical study on the volcanic rocks of Indonesia. Science Repts. Faculty of Science, Kyushu University, Geology, 5, 4, p. 181-195.

Taneda, S. (1963)- Petrochemical studies on the active volcanoes in Eastern and Southeastern Asia. Bull. Volcanology 26, 1, p. 415-430.
('Alkali-lime index' decreases inward from outer zone of the arcuate zone in volcanic arcs of Kamchatka, Kurile Islands, Japan and Indonesia Islands)

Taverne, N.J.M. (1923)- Vulkanologie in Nederlandsch Indie. De Mijningenieur 4, p. 69-98.
('Volcanology in the Netherlands Indies')

Ter Braake, A.L. (1945)- Volcanology in the Netherlands Indies. In: P. Honig & F. Verdoorn (eds.) Science and scientists in the Netherlands Indies, Board for Netherlands Indies, Surinam and Curacao, New York, p. 22-35.
(Brief review of active volcanism in Indonesia)

Tjia, H.D. (1967)- Volcanic lineaments in the Indonesian island arcs. 11th Pacific Science Congress, Tokyo 1966, Bull. Volcanologique 31, 1, p. 85-96.
(More than 400 linear arrangements of active volcanic centers of Indonesia. Subdivided into small (on the same volcano), medium (same volcanic range), and large (connections between volcanic loci on separate cones or ranges). >70% of lineaments classified as first and second order shear, tension, and extension directions. Most volcanic lineaments along narrow zones of weakness, related to regional structure)

Tjia, H.D. (1968)- Volcanic lineaments in the Indonesian island arcs. Pacific Geology 1, p. 175-182.
(Same paper as Tjia 1967, above)

Tjia, H.D. (1969)- Breaks in slope on strato-volcanoes. Bull. Nat. Inst. Geology and Mining (NIGM), Bandung, 2, 3, p. 35-40.
(Many stratovolcanoes of Indonesia have two slope breaks, separating three slope segments: uppermost slope of 27-30° (angle of repose of young pyroclastics), middle slope 7-11° (area of common lahars) and lower slopes 3-4° (flood-laid sediments))

Tjia, H.D. & R.F. Muhammad (2008)- Blasts from the past impacting on Peninsular Malaysia. Bull. Geol. Soc. Malaysia 54, p. 97-102.
(online at: www.gsm.org.my/products/702001-100478-PDF.pdf)
(At Plio-Pleistocene transition 3 large volcanic centres in Barisan Mts. (Sumatra) began producing large amounts of felsic tephra and pyroclastic flows. At Toba perhaps 4 paroxysmal events between 1.9 Ma- ~30 ka. Centres marked by 100's of m of ignimbrite, pyroclastic tuffs and air-fall tephra. Air-fall tuff identified throughout Peninsular Malaysia, up to 1m thick and generally attributed to single 'Toba eruption' at 70-75 ka, but possibly multiple eruptions)

Turner, S. & J. Foden (2001)- U, Th and Ra disequilibria, Sr, Nd and Pb isotope and trace element variations in Sunda arc lavas: predominance of a subducted sediment component. Contrib. Mineralogy Petrology 142, p. 43-57.
(Isotope and major and trace element data from 19 lavas along Sunda arc. Lavas range in SiO2 from 49-75%. Important shallow-level contamination by ancient crustal materials in Sumatra. Little evidence for any effect of Australia-Indonesia collision on composition of lavas. Across-arc trends in lava composition indicate increasing relative contribution from subducted sediment)

Turner, S., J. Foden, R. George, P. Evans, R. Varne, M. Elburg & G. Jenner (2003)- Rates and processes of potassic magma evolution beneath Sangeang Api volcano, East Sunda arc, Indonesia. J. Petrology 44, 3, p. 491-516.
(online at: http://petrology.oxfordjournals.org/content/44/3/491.full.pdf+html)
(Sangeang Api active volcano at NE side of Sumbawa. High K, silica-undersaturated, with mafic-ultramafic (pyroxenite)and gabbroic xenoliths)

Umbgrove, J.H.F. (1930)- Het vulkaaneiland Oena-Oena (Noord Celebes). Leidsche Geol. Mededelingen 3, 5, p. 249-258.
(online at: www.repository.naturalis.nl/document/549452)
('The volcanic island Una Una (N Sulawesi)'. Profile is of an 'older' volcano. Erupted in 1898. Typical lahars present. Crater floor flat with lava dome. Some coral growth on submarine slope, but no true reefs)

Umbgrove, J.H.F. (1945)- Different types of island-arcs in the Pacific. The Geographical J. 106, p. 198-209.
(W Pacific- Indonesia island arcs associated with deep continent-ward dipping shear plane and deep trench along outer sides (came very close to characterizing a subduction zone, long before plate tectonic theory was

formulated; JTvG). Three types island arcs: double arcs (Indonesia), pseudo-single arcs (Kurile-Aleutian) and single (Marianas- Bonin) arcs)

Van Bemmelen, R.W. (1929)- Het caldera probleem. De Mijningenieur 10, 5, p. 101-112.
('The caldera problem'. Model for creation of calderas by volcano collapse after major explosive 'emptying-out' eruption, with reference to mainly Indonesian volcanoes (Toba, Tengger, Krakatau, etc.)

Van Bemmelen, R.W. (1938)- On the origin of the Pacific magma types in the volcanic inner arc of the Soenda Mountain System. De Ingenieur in Nederlandsch-Indie (IV), 5, 1, p. 1-15.
(Discussion on origin of Miocene and younger calc-alkaline or Pacific magmatism on S Sumatra (Barisan Mts.) and Java (Bantam intrusions and Merawan granite batholith))

Van Bemmelen, R.W. (1943)- Register of the localities of volcanic activity in the East Indian Archipelago. Bull. East Indian Volcanological Survey 95-98 (1941), p. 5-14.
(Inventory of 130 active volcanoes in Indonesia)

Van Bemmelen, R.W. (1949)- Volcanism. Chapter III in Van Bemmelen (1949)- The geology of Indonesia, vol. 1A, The Hague, p. 188-256.
(Review of active volcanism (177 volcanoes), products volcanic eruptions, composition of volcanic products and distribution and composition of associated igneous rocks)

Van Bemmelen, R.W. (1949)- Report on the volcanic activity and volcanological research in Indonesia during the period 1936-1948. Bull. Volcanologique, ser. 2, 9, 1, p. 3-28.
(Summary of activity of Indonesia's 130 active volcanoes from 1936-1948. Detailed records collected by Volcanological Survey until Japanese occupation in 1942; after that limited information, mainly from Java)

Van Bemmelen, R.W. (1961)- Volcanology and geology of ignimbrites in Indonesia, North Italy, and the USA. Geologie en Mijnbouw 40, 12, p. 399-411.
(Same title as Van Bemmelen 1963. On Java- Sumatra three Cenozoic pulses of uplift with intrusions and extrusions of acid magmas. Cenozoic deposits start with deposition of Eocene quartz sandstones and marine sediments without tuffaceous components. This was followed by Oligocene- E Miocene 'Old-Andesite' volcanoes, which are largely submarine and represent first cycle of andesitic, calc-alkaline Pacific volcanism. M Miocene second pulse of uplift with formation of proto-Semangko rift with acid magma on Sumatra (between E Miocene Telisa and M Miocene Lower Palembang beds. In Mio-Pliocene time subsidence again prevailed in Sumatra-Java belt. Andesitic volcanism resumed, forming 2nd Andesite Fm (M Palembang Beds of Sumatra, Bentang Beds, etc of Java). At end Tertiary a third pulse of orogenic uplift, creating present Sumatra-Java geanticline and again accompanied by rifting and voluminous outbursts of acid pumiceous tuffs on Sumatra)

Van Bemmelen, R.W. (1963)- Volcanology and geology of ignimbrites in Indonesia, North Italy, and the U.S.A.. Bull. Volcanologique, ser. 2, 25, 1, p. 151-173.
(Same as Van Bemmelen 1961. Sumatra -Java arc of Indonesia three pulses of orogenic uplift after its Mesozoic geosynclinal subsidence. All three accompanied by rise and occasional ignimbritic eruptions of acid magma. 'Normal' igneous rocks of intermediate composition erupted during intervening periods)

Van Bemmelen, R.W. (1971)- Four volcanic outbursts that influenced human history. Toba, Sunda, Merapi and Thera. In: Acta First Int. Scientific Congress on the Volcano of Thera, Archaeological Service of Greece, Athens 1971, p. 5-50.

Van Bergen, M.J., R.D. Erfan, T. Sriwana, K. Suharyono, R.P.E. Poorter, J.C. Varekamp et al. (1989)- Spatial geochemical variations of arc volcanism around the Banda Sea. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, 2-3, p. 313-322.
(Active volcanoes of E Sunda Arc and Banda Arc 100-250 km above Benioff zone. Wide range of lavas, from are-tholeiitic (low-K) to leucite-bearing (alkaline) suites. Variations along and across arc. For volcanoes with

similar distance to Benioff zone potassium and other incompatible elements progressively increase towards collision area near Timor, and close to Timor also increasing with increasing distance to Benioff zone)

Van Bergen, M.J., P.Z. Vroon & J.A. Hoogewerff (1993)- Geochemical and tectonic relationships in the east Indonesian arc-continent collision region: implications for the subduction of the Australian passive margin. Tectonophysics 223, 1-2, p. 97-116.
(Variations in isotope signatures along E Sunda Arc show maximum magma source contamination near extinct sector N of Timor. Increasing contribution of subducted continental material in direction of collision. Leading part of Australian continental margin reached magma generation zone in E Sunda- W Banda arc, implying subduction deeper than 100 km)

Van Bergen, M.J., P.Z. Vroon, J.C. Varekamp & R.P.E. Poorter (1992)- The origin of the potassic rock suite from Batu Tara volcano (East Sunda arc, Indonesia). Lithos 28, p. 261-282.
(Batu Tara is active potassic volcano in E Sunda arc. Leucite-bearing rock suite two groups, suggesting parental magmas with different mantle origins. Trace element and isotopic compositions consistent with involvement of subducted sedimentary/crustal component as well as MORB and OIB mantle)

Van Tongeren, W. (1938)- Contributions to the knowledge of the chemical composition of the earth's crust in the East Indian Archipelago. I. The spectrographic determination of the elements according to arc methods in the range 3600-5000A., II. On the occurrence of rarer elements in the Netherlands East Indies. Doct. Thesis, University of Utrecht, Centen, Amsterdam, p. 1-181. *(Unpublished)*
(Incl. observation that Tin Islands granites are rel. rich in Rare Earth Elements)

Varekamp, J. C., M.J. Van Bergen, P.Z. Vroon, R.P.E. Poorter, A.D Wirakusumah, R. Erfan, K. Suharyono & T. Sriwana (1989)- Volcanism and tectonics in the Eastern Sunda Arc, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, p. 303-312.
(Four segments distinguished by Sr isotopes in Java-Sunda-Banda volcanic arc. Adonara-Pantar segment between Flores and Alor studied here, transition between W Banda Arc volcanics (in E) with clear 'continental' signature and Sunda Arc volcanics (in W) with little evidence of subduction of continental material)

Varne, R. (1985)- Ancient subcontinental mantle; a source for K-rich orogenic volcanics. Geology 13, 6, p. 405-408.
(Mafic volcanics, ranging from calc-alkaline basalts through shoshonitic trachybasalts to leucitites, along E Sunda Arc arc from Bali (Agung) to Flores. With 3-fold enrichment in K, Rb, Sr, Ba, La and Nb, increasing toward collision zone, correlating with increasing 87Sr/86Sr and decreasing 143Nd/144Nd values. K-rich material derived from ancient subcontinental mantle. E Sunda K-rich mafic volcanism first appeared after collision began. Before collision, ancient NW Australian mantle erupted K-rich, diamond-bearing ultramafics with high Sr and low Nd ratios, part of ultrapotassic continental volcanic association)

Varne, R. & J.D. Foden (1986)- Geochemical and isotopic systematics of Eastern Sunda Arc volcanics: implications for mantle sources and mantle mixing processes. In: F.C. Wezel (ed.) The origin of arcs, Developments in Geotectonics 21, Elsevier, p. 159-189.

Verstappen, H.Th. (1963)- Geomorphological observations on Indonesian volcanoes. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2), 80, 3, p. 237-251.

Verbeek, R.D.M. (1885)- Krakatau. Landsdrukkerij, Batavia, Indonesia, p. 1-567.
Dutch and French editions; With two Atlas volumes)
(Dutch text online at: https://books.google.com/books/about/Krakatau.html?id=j5Q0AQAAMAAJ)
(French text volume online at: https://archive.org/details/krakatau00verbgoog)
(Classic account of the 1883 cataclysmic eruption of Krakatoa volcano in Sunda Straits and its effects (incl. human casualties, tuffs and tsunami deposits, etc.))

Verstappen, H.Th. (2005)- Volcanic islands. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 142-156.
(Brief review of distribution of volcanic islands and volcanic landforms in SE Asia)

Vidal, C.M., J.C. Komorowski, N. Metrich, I. Pratomo, N. Kartadinata, O. Prambada, A. Michel, G. Carazzo, F. Lavigne, J. Rodysill, K. Fontijn & Surono (2015)- Dynamics of the major plinian eruption of Samalas in 1257 A.D. (Lombok, Indonesia). Bull. Volcanology 77, p. 73-
(Caldera-forming eruption of Samalas (Lombok) in 1257 AD associated with largest sulphate spike of last 2 ky recorded in polar ice cores. Four-phase continuous eruption produced 33-40 km3 dense rock equivalent of deposits, mainly pumiceous plinian fall products, pyroclastic density current deposits and ash that could be identified 660 km from source. Eruption dynamics consistent with efficient dispersal of sulphur-rich aerosols across globe)

Vidal, C.M., N. Metrich, J.C. Komorowski, I. Pratomo, A. Michel, N. Kartadinata, V. Robert & F. Lavigne (2016)- The 1257 Samalas eruption (Lombok, Indonesia): the single greatest stratospheric gas release of the Common Era. Nature Scientific Reports 6, 34868, p. 1-13.
(online at: https://www.nature.com/articles/srep34868.pdf)
(Great 1257 eruption of Samalas (Lombok) released enough sulfur and halogen gases into stratosphere to produce reported global cooling during second half of 13th century)

Von Rad, U., K.P. Burgath, M. Pervaz & H. Schulz (2002)- Discovery of the Toba Ash (c. 70 ka) in a high-resolution core recovering millennial monsoonal variability off Pakistan. In: P.D. Clift et al. (eds.) The tectonic and climatic evolution of the Arabian Sea region, Geol. Soc., London, Spec. Publ. 195, p. 445-461.
(Toba Ash layer in NE Arabian Sea SW of Pakistan near base of 20.2m piston core. Also two younger ash layers, presumably from Indonesian volcanoes. Toba event (70 ±4 ka BP) well documented in Arabian Sea and Bay of Bengal records at end of Oxygen Isotope Stage 20. With map of known Toba ash distribution)

Vroon, P.Z. (1992)- Subduction of continental margin material in the Banda Arc, Eastern Indonesia. Sr-Nd-Pb isotope and trace-element evidence from volcanics and sediments. Ph.D. Thesis University of Utrecht, Geologica Ultraiectina 90, p. 1-205.
(online at: http://dspace.library.uu.nl/handle/1874/316569)
(Isotope and trace element geochemistry study of eastern part of Banda Arc, in area controlled by active arc-continent collision (Romang, Damar, Teon, Nila, Serua, Manuk, Banda). Composition of samples from 7 volcanoes suggests subducted continental sedimentary material in magma increases from <1% in NE to 5-10% in SW)

Vroon, P.Z., D. Lowry, M.J. van Bergen, A.J. Boyce & D.P. Mattey (2001)- Oxygen isotope systematics of the Banda Arc: low d18O despite involvement of subducted continental material in magma genesis. Geochimica Cosmochimica Acta 65, 4, p. 589-609.
(Oxygen isotope data for 60 volcanic rocks and 15 sediments along entire Banda Arc. Generally low d18O values (excluding Serua, Ambon) compatible with 1-5% addition of subducted continental material to depleted MORB-type source in sub-arc mantle. Assimilation of up to 20% and 80% arc-crust material thought to be cause of high d18 O values of Serua and Ambon)

Vroon, P.Z., M.J. van Bergen & E.J. Forde (1996)- Pb and Nd isotope constraints on the provenance of tectonically dispersed continental fragments in East Indonesia. In: R. Hall & D. Blundell (eds.) Tectonic evolution of Southeast Asia, Geol. Soc., London, Spec. Publ. 106, p. 445-453.
(Pb-Nd isotopes of igneous rocks on microcontinents are indicators of provenance: Ambon-Seram= S. New Guinea, Bacan= N Australia or W New Guinea, Banda Ridges= Pacific New Guinea, Sumba= Sundaland)

Vroon, P.Z., M.J. van Bergen, G.J. Klaver & W.M. White (1995)- Strontium, Neodymium and lead isotopic and trace-element signatures of the East Indonesian sediments: provenance, and implications for Banda Arc magma genesis. Geochimica Cosmochimica Acta 59, 12, p. 2573-2598.

(Trace elements and Sr-Nd-Pb isotopes show 4 major provenance areas: N New Guinea + Seram, S New Guinea, Timor, North Australia)

Vroon, P.Z., M.J. van Bergen, W.M. White & J.C. Varekamp (1993)- Sr-Nd-Pb isotope systematics of the Banda Arc, Indonesia: combined subduction and assimilation of continental material. J. Geophysical Research 98, B12, p. 22349-22366.
(Isotope datas for six active and one extinct volcano over Banda Arc. Rock types low-K tholeiitic in NE, high-K calc-alkaline in SW. Volcanoes in NE 'normal' arc signatures, in SW extreme values. Evidence for contribution of subducted continent-derived material to magma sources. Addition of 0.1-2% local sediment in NE Banda arc, and 1-3% in SW Banda Arc to Indian Ocean MORB source explain isotope trends. Serua and Romang require >5% sediment)

Wasmund, E. (1934)- Vulkano-telmatischer Melanientuff am Caldera-See Danau Batur auf Bali (Insulinde). Archiv fur Hydrobiologie, Suppl.-Band 13, p. 292-315.
('Vulkano-telmatic melanien tuff at the Danau Batur caldera lake on Bali (Indonesia)'. Recent tuffs of Batur)

Watanabe, K., T. Yamanaka, A. Harijoko, C. Saitra & I.W. Warmada (2010)- Caldera activities in North Bali, Indonesia. J. Southeast Asian Applied Geol. (UGM) 2, 3, p. 283-291.
(online at: http://geologic-risk.ft.ugm.ac.id/fresh/jsaag/vol-2/no-3/jsaag-v2n3p283.pdf)
(Two Quaternary caldera systems on Bali: Batur caldera and Buyan-Bratan caldera)

Westerveld, J. (1954)- Radioactivity and chemistry of some Indonesian eruptive rocks. Verhandelingen Kon. Akademie Wetenschappen, Amsterdam, Ser. 1, 20, 4, p. 1-52.
(online at: www.dwc.knaw.nl/DL/publications/PU00010947.pdf)
(Four Mesozoic- Tertiary concentric belts of fold structures and plutonic rocks in Indonesia, connecting Burma with Philippines, each with own types of plutonic rocks and ore deposits: (1) Jurassic Malayan orogen of Malay Peninsula, Tin islands, possibly W, SW and C Kalimantan; (2) Late Cretaceous Sumatra orogen of Sumatra, C Java, Meratus; (3) M Miocene Soenda orogen (should be E Miocene; 'Old Andesites'; JTvG) of SW Sumatra, Java S Mountains, volcanic Lesser Sunda islands) and (4) the active Moluccan orogen. Late Quaternary volcanics two groups, 'Pacific' calc-alkaline and 'Mediteranean' potassic. Analyzed 157 samples for radioactivity and bulk chemical composition. Mesozoic granites from Tin islands very different petrochemistry from Kalimantan (Schwaner Mts, etc.) granites)

Westgate, J.A. P.A.R. Shane, N.J.G. Pearce, W.T. Perkins, R. Korisettar, C.A. Chesner et al. (1998)- All Toba tephra occurrences across Peninsular India belong to the 75,000 yr B.P. eruption. Quaternary Research 50, 1, p. 107-112.

Wetzel, A. (2009)- The preservation potential of ash layers in the deep-sea: the example of the 1991-Pinatubo ash in the South China Sea. Sedimentology 56, p. 1992-2009.
(After 1991eruption of Mount Pinatubo, Philippines, volcanic ash transported W to S China Sea in atmospheric plume, formed up to 10cm thick graded layer over >400,000 km2. Immediately after deposition surviving deep-burrowing animals re-opened connection to sea floor. Later, small meiofauna and macrofauna recolonized sea floor, mixing newly deposited organic material with underlying ash. Ash deposits <1mm thick not often observed as continuous layer when cored 6 years after eruption; ash ~2mm thick now patchily bioturbated. Areas affected by deposition of turbidites ash layer often preserved due to rapid burial)

Wheller, G.E. (1986)- Petrogenesis of Batur caldera, Bali, and the geochemistry of Sunda-Banda arc basalts. Ph.D. Thesis, University of Tasmania, p. 1-156. *(Unpublished)*

Wheller, G.E. & R. Varne (1986)- Genesis of dacitic magmatism at Batur volcano, Bali, Indonesia: Implications for the origin of stratovolcano calderas. J. Volcanology Geothermal Res. 28, p. 363-378.
(Batur active stratovolcano on Bali, Indonesia, with large caldera correlated with eruption at ~23,700 years ago that formed thick ignimbrite sheet. Formation of caldera due to change in lava composition from basaltic-

andesitic to dacitic. Dacitic rocks characteristics consistent with origin by crystal-liquid fractionation from more mafic parent magmas in shallow chamber, possibly at 1.5 km depth and 1000-1070°C)

Wheller, G.E., R. Varne, J.D. Foden & M.J. Abbott (1987)- Geochemistry of Quaternary volcanism in the Sunda- Banda arc, Indonesia, and three-component genesis of island-arc basaltic magmas. J. Volcanology Geothermal Res. 32, 1-3, p. 137-160.
(Excluding Sumatra and Wetar (mainly dacitic and rhyolitic volcanics), four geochemical arc sectors in Sunda-Banda arc: W Java, Bali, Flores (each more K-rich eastwards, culminating in leucitite volcanoes Muriah, Soromundi, Sangenges and Batu Tara). Dominant source component common to all sectors probably peridotitic mantle. Second component, with high 87Sr/86Sr value, may be crustal material, most apparent in Banda sector, but also present to lesser extents in W Java and Flores sectors)

Whelley, P.L., C.G. Newhall & K.E. Bradley (2015)- The frequency of explosive volcanic eruptions in Southeast Asia. Bull. Volcanology 77, 1, p. 1-11.
(online at: http://link.springer.com/article/10.1007/s00445-014-0893-8?view=classic)
(~733 active and potentially active volcanoes in SE Asia region, of which 70 have erupted in last 100 years)

Whitford, D.J. (1975)- Strontium isotopic studies of the volcanic rocks of the Sunda arc, Indonesia, and their petrogenetic implications. Geochimica Cosmochimica Acta 39, p. 1287-1302.
(Pleistocene-Recent lavas from Sunda arc range from island arc tholeiitic series, through calc-alkaline to high-K alkaline rocks. Calc-alkaline suite decrease in 87Sr/86Sr from W Java to Bali with some evidence for increasing 87Sr/86Sr with increasing depth to Benioff zone. 87Sr enrichment due to isotopic equilibration of oceanic crust with sea water and disequilibrium melting in slab. Calc-alkaline lavas with high ratios best explained by sialic contamination, or presence of alkali basalt as component of downgoing slab. Sr isotopic data for high-K alkaline lavas suggest mantle origin. High ratio in Lake Toba rhyolite implies crustal origin)

Whitford, D.J., W. Compston, I.A. Nicholls & M.J. Abbott (1977)- Geochemistry of Late Cenozoic lavas from Eastern Indonesia: role of subducted sediments in petrogenesis. Geology 5, p. 571-575.
(Late Cenozoic basalts N of Timor from Solor to Serua primitive tholeiitic, but associated more silicic rocks suggest involvement of continental crust or sediment)

Whitford, D.J. & P.A. Jezek (1979)- Origin of Late Cenozoic lavas from the Banda arc, Indonesia: trace element and Sr isotope evidence. Contrib. Mineralogy Petrology 68, p. 141-150.
(Active arc located on what appears to be oceanic crust whereas associated subduction trench is underlain by continental crust. Recent lavas predominantly andesitic, tholeiitic in N to calc-alkaline varieties in S islands. High 87Sr/86Sr ratios in calc-alkaline lavas interpreted to result from mixing of sialic component with mantle derived component. Likely cause is subduction and melting of sea-floor sediments or continental crust)

Whitford, D.J. & P.A. Jezek (1982)- Isotopic constraints on the role of subducted sialic material in Indonesian island-arc magmatism. Geol. Soc. America (GSA) Bull. 93, 6, p. 504-513.
(In Banda Arc continental material (probably subducted sediments) appears to be subducting beneath volcanic arc that is underlain by oceanic crust)

Whitford, D.J. & I.A. Nicholls (1975)- Geochemistry of the volcanic rocks of the Sunda island arc of Indonesia. Exploration Geophysics 6, 2/3, p. 76-77. *(Abstract only)*
(Sunda volcanic arc from N of Sumatra, through Java, Bali, Lombok, Sumbawa, Flores, Lesser Sunda Islands, after which becomes Banda arc. Variety of tectonic environments. Sumatra crust ~40 km thick with Paleozoic granites. Benioff zone only to ~200 km. Beneath Java crust thinner and younger; oldest exposed rocks Mesozoic, and Benioff zone to ~600km beneath Java Sea to N. Further E, crust thinner (~15 km), oceanic in velocity structure and Benioff zone to great depths)

Whitford, D.J. & I. A. Nicholls (1976)- Potassium variation in lavas across the Sunda arc in Java and Bali. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 63-75.

Sunda arc of Java-Bali relatively simple tectonic setting above N-dipping Benioff seismic zone. Quaternary lavas of 'normal island arc association' (tholeiites to high-K calc-alkaline lavas) over Benioff zone depths from 120-250 km. High-K alkaline lavas above Benioff zone depths >300 km. Magmas derived mainly from mantle wedge above Beioff zone, where modified by water and/or melt from the subducted oceanic crust)

Whitford, D.J., I.A. Nicholls & S.R. Taylor (1979)- Spatial variations in the geochemistry of Quaternary lavas across the Sunda arc in Java and Bali. Contrib. Mineralogy Petrology 70, 3, p. 341-356.
(Island arc lavas range from tholeiites to high-K calc-alkaline lavas over Benioff zone depths 120 to 250 km. More abundant calc-alkaline lavas between these extremes. High-K alkaline lavas over Benioff zone depths over 300 km. Incompatible elements increase with depth to seismic zone. Java and Bali lavas geochemistry best explained by combination of mantle source melting and partial melting of that material at progressively greater depths. Primary tholeiitic magmas may form by 20-25% melting at 30-40 km, primary high-K calc-alkaline magmas by 5-15% melting at 40-60 km, and primary alkaline magmas by 5% melting at 80-90 km)

Whitford, D.J. & W.M. White (1981)- Neodymium isotopic composition of Quaternary island arc lavas from Indonesia. Geochimica Cosmochimica Acta 45, p. 989-995.
(143Nd/144Nd ratios in Quaternary lavas from Java and Banda arc exhibit inverse correlation with 87Sr/86Sr. Indonesian samples resemble Andean rather than island arc lavas)

Wichmann, C.E.A. (1910)- Uber den Vulkan Soputan in der Minahassa. Zeitschrift Deutschen Geol. Gesellschaft, Monatsberichte 62, 8, p. 589-595.
('On the Soputan volcano in the Minahasa', NE Sulawesi. Critique of Ahlburg (1910) description of Soputan eruption history on date of last major eruption (1828 or 1838), etc.)

Wichmann, C.E.A. (1911)- Uber die Ausbruche des Soputan in der Minahassa. Zeitschrift Deutschen Geol. Gesellschaft, Monatsberichte 63, 4, p. 228-232.
(online at: https://www.biodiversitylibrary.org/item/182872#page/926/mode/1up)
('On the eruptions of the Soputan in the Minahasa', NE Sulawesi'. Continuation of unusually harsh critique of Ahlburg 1910 papers. Nothing new here)

Wichmann, C.E.A. (1918)- Over de vulkanen van het eiland Tidore (Molukken). Verslagen Kon. Akademie Wetenschappen, Amsterdam 27, 9p.
('On the volcanoes of Tidore island (Moluccas)')

Wichmann, C.E.A. (1918)- On the volcanoes in the island of Tidore island. Proc. Kon. Akademie Wetenschappen, Amsterdam 21, p. 983-990.
(online at: www.dwc.knaw.nl/DL/publications/PU00012167.pdf)
(English version of Wichmann (1918). Tidore Island composed of several andesitic volcanic centers, the tallest Matubu- ~1730m high, others ~400-800m high)

Wille, M., O. Nebel, T. Pettke, P.Z. Vroon, S. Konig & R. Schoenberg (2018)- Molybdenum isotope variations in calc-alkaline lavas from the Banda arc, Indonesia: assessing the effect of crystal fractionation in creating isotopically heavy continental crust. Chemical Geology 485, p. 1-13.
(Large Mo isotope variability in Banda Arc convergent margin lavas)

Willems, H.W.V. (1939)- Over de magmatische provincien in Nederlandsch Oost-Indien. Geologie en Mijnbouw 1, 3, p. 47-55.
('On the magmatic provinces in the Netherlands East Indies'. Not overly useful)

Willems, H.W.V. (1940)- On the magmatic provinces in the Netherlands East Indies. Verhandelingen Kon. Nederl. Geologisch Mijnbouwkundig Genootschap, Geol. Serie 12, 3, p. 289-477.
(Mainly listings of chemical analyses of 1220 volcanic rock samples)

Winchester, S. (2003)- Krakatoa: the day the world exploded, 27 August 1883. HarperCollins Publishers, New York, p. 1-416.
(Popular, but thorough account of the 1883 eruption of Krakatoa volcano in Sunda Strait that killed nearly 40,000 people)

Wing Easton, N. (1929)- Volcanic science in past and present. In: L.M.R. Rutten (ed.) Science in the Netherlands Indies, Kon. Akademie Wetenschappen, Amsterdam, p. 80-100.
(Brief overview of volcano studies in Indonesia until 1929)

Wirakusumah, A.D. (ed.) (2012)- Gunung api, ilmu dan aplikasinya. Centre for Geological Survey, Bandung, Spec. Publ., p.
('Volcanoes, science and its applications')

Wirakusumah, A.D.& H. Rachmat (2017)- Impact of the 1815 Tambora eruption to global climate change. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conf. Series, Earth Environm. Science, 71, 012007, p. 1-9.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012007/pdf)
(April 1815 paroxysmal destructive eruption of Tambora formed caldera and emitted 60- 80 megatons of SO2 to stratosphere. SO2 circled the world and oxidized to form H2SO4, an aerosol limiting sunlight to reach earth surface. 1816 was year without summer in Europe, epidemic diseases in Benggal, etc.)

Wood, G.D. (2014)- Tambora: the eruption that changed the world. Princeton University Press, p. 1-312.
(Review of 1815 eruption of Tambora volcano on Sumbawa island and its global impact)

Xia, L. & R. Clocchiatti (1986)- Magmatic inclusions in phenocrystals from andesitic lavas, Krakatau volcano, Indonesia. Chinese J. Geochemistry 5, 4, p. 331-346.

Yokoyama, I. & S. Siswowidjojo (1970)- A gravity survey on and around Batur Caldera, Bali. Bull. Earthquake Res. Inst. 48, p. 317-329.

Zaennudin, A. (2010)- The characteristic of eruption of Indonesian active volcanoes in the last four decades. J. Lingkungan Bencana Geol. 1, 2, p. 113-129.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/287)
(Indonesia has 129 active volcanoes (~13% of world). Three types: A (79) with recorded eruptions since 1600; B (29) with solfataric and or fumarolic activity and crater; C (21) in solfataric stage, but volcanic edifice not clear)

Zelenov, K.K. (1964)- The submarine volcano Banua Wuhu, Indonesia. Inst. Techn Bandung (ITB), Contrib. Dept. Geology 55, p. 19-34.
(Submarine volcano, rising >400m from sea floor in Sangihe Islands, Moluccas Sea. Erupted in 1918)

Zen, M.T. (1964)- The volcanic calamity in Bali in 1963. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 81, p. 92-100.

Zen, M.T. (1966)- The formation of various ash flows in Indonesia. Bulletin Volcanol. 29, 1, p. 77-78. *(Abstract and discussion from IAV Int. Symposium on Volcanology, New Zealand 1965)*

Zen, M.T. (1968)- On the possible relationship between the origin of andesitic rocks and the growth of continents. Contr. Dept. Geology, Institute Technology Bandung (ITB) 6, p. 23-41.

Zen, M.T. (1969)- The occurrence of hill swarms and wave-like undulations around some Indonesian volcanoes. Bull. Nat. Inst. Geology and Mining (NIGM), Bandung 2, 3, p. 41-49.
(Three types of hills around Indonesian volcanoes: (1) parasitic volcanic cinder cones (Slamet, Lamongan, etc.), (2) hillocks formed by lahar deposits (e.g. Galunggung, Raung, etc.), and (3) anticlinal structures resulting from

collapse of volcanic cones or squeezing of soft sediment by weight of volcano itself (N floor Ungaran, Gendol SW of Mt Merapi, N of Tangkuban Perahu, N of Arjuna, etc.))

Zielinski, G.A., P.A. Mayewski, L.D. Meeker, S. Whitlow, M. Twickler & K. Taylor (1996)- Potential atmospheric impact of the Toba mega-eruption. Geophysical Research Letters 23, 8, p. 837-840.
(~6-year long period of volcanic sulfate recorded in Greenland GISP2 ice core at ~71.1 ± 5 ka may reflect Toba mega-eruption. Deposition of these aerosols at beginning of ~1000-year long stadial event, but not immediately before longer glacial period beginning ~67.5 ka. Toba aerosols may be responsible for enhanced cooling during initial 200 yrs of ~1000-year cooling event ('volcanic winter'))

I.4. Modern depositional environments, Oceanography, Indonesian Throughflow

Ahmad, S.M., F. Guichard, K. Hardjawidjaksana, M.K. Adisaputra & L.D. Labeyrie (1995)- Late Quaternary paleoceanography of the Banda Sea. Marine Geology 122, p. 385-397.
(Oxygen and carbon isotopes of benthic (Uvigerina, Cibicidoides) and planktonic (Gs. ruber) foraminifera from Banda Sea deep-sea over last 180 kyr indicate increase in Banda surface and deep water salinity during glacial conditions. Planktonic data influenced by precession (23 kyr periodicity) while benthic values reflect intermediate Pacific water fluctuations. Banda Sea records indicate general good ventilation. Deepening of lysocline resulted in higher carbonate content during glacial periods, similar to N Pacific)

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(online at: http://onlinelibrary.wiley.com/doi/10.1002/joc.950/epdf)
(Three rainfall regions in Indonesia, related to island topography and sea-surface Temperature variability: (A) S Indonesia (S Sumatera to Timor, S Kalimantan, Sulawesi and part of Irian Jaya); (B) NW Indonesia (N Sumatra to NW Kalimantan); (C) Maluku and N Sulawesi. All with strong annual and (except A) semi-annual variability. Region C strongest El Nino- Southern oscillation influence)

Alongi, D.M., M. da Silva, R.J. Wasson & S. Wirasantosa (2013)- Sediment discharge and export of fluvial carbon and nutrients into the Arafura and Timor Seas: a regional synthesis. Marine Geology 343, p. 146-158.
(Islands of Timor and New Guinea significant sources of sediment. Most material delivered into Arafura and Timor Seas comes from New Guinea. Island and continental materials overlap with volcanic input from Banda Arc. Discharge from New Guinea and Timor greater than from N Australia)

Alongi, D.M., L.A. Trott, F. Tirendi, A.D. McKinnon & M.C. Undu (2008)- Growth and development of mangrove forests overlying smothered coral reefs, Sulawesi and Sumatra, Indonesia. Marine Ecology Progress Ser. 370, p. 97-109.
(Human-induced shifts from fringing reef-dominated to mangrove-dominated coastal habitats in S Sumatra and SW Sulawesi)

Amijaya, H. & Ngisomuddin (2007)- Textural characteristics of tsunamiite: study on recent tsunami deposit at Pangandaran coast, Ciamis and Parendog coast, Yogyakarta. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 1103-1109.
(Recent tsunamiites of Java S coast have erosional base, homogeneous m-f sand grain size and no fining-upward trend. Sedimentary structures parallel lamination in lower part and ripples in upper part)

Andersson, H.C. & A. Stigebrandt (2005)- Regulation of the Indonesian Throughflow by baroclinic draining of the North Australian Basin. Deep Sea Research I, 52, 12, p. 2214-2233.
(Mainly low-saline N Pacific water fills upper part of Indonesian seas and downstream buoyant (surface) pool (DBP) that stretches over large part of N Australian Basin. Long-term mean steric sea level in Indonesian seas equal to neighboring Pacific Ocean sea level. Change of steric sea level from Pacific to Indian Ocean sea level at border between DBP and Indian Ocean. Darwin located inside DBP. Control of ITF set by baroclinic transport capacity of DBP relative to adjacent (Indian Ocean) water. Mean ITF, estimated as outflow from DBP to S Equatorial Current, is about 10 Sv. ITF imprint is fresh and cold. Atmospheric transfer of freshwater to N Pacific and vertical mixing in N Pacific provide driving of mean ITF and ITF is major branch of estuarine-type vertical circulation of N Pacific)

Andruleit, H. (2007)- Status of the Java upwelling area (Indian Ocean) during the oligotrophic northern hemisphere winter monsoon season as revealed by coccolithophores. Marine Micropaleontology 64, p. 36-51.
(Coccolithophores used as indicators for present-day functioning of Java upwelling)

Andruleit, H., A. Luckge, M. Wiedicke & S. Stager (2008)- Late Quaternary development of the Java upwelling system (eastern Indian Ocean) as revealed by coccolithophores. Marine Micropaleontology 69, 1, p. 3-15.

(Coccolithophores help decipher Pleistocene paleoproductivity changes in E Indian Ocean in past 300-65.3 kyr. Core SO139-74KL at seaward limit of fore-arc basin of Indonesian continental shelf, beneath Java upwelling system. Dominated by Florisphaera profunda (41.5%), followed by Gephyrocapsa ericsonii, Emiliania huxleyi and G. oceanica. Warm tropical conditions prevailed throughout)

Arifin, S.R.D. (1996)- Studi paleosalinitas perairan Indonesia sejak Glasial Maksimum terakhir sampai Resen. Proc. 25th Ann. Conv. Indon. Assoc. Geol. (IAGI), 2, p. 148-159.
('Study of paleosalinity of Indonesian waters from the Last Glacial Maximum until Recent)

Arp, G., A. Reimer & J. Reitner (2003)- Microbialite formation in seawater of increased alkalinity, Satonda Crater Lake, Indonesia. J. Sedimentary Res. 73, p. 105-127.
(Crater lake of Satonda, a small volcanic island 3 km NW of Sumbawa, with red-algal microbial reefs in marine-derived water of increased alkalinity. Potential analogue for ancient microbialites in open-marine facies)

Arp, G., J. Reitner, G. Worheide & G. Landmann (1996)- New data on microbial communities and related sponge fauna from the alkaline Satonda crater lake (Sumbawa, Indonesia). Gottinger Arbeiten Geologie Palaeontologie, Sonderband SB2, p. 1-7.
(Crater lake of Satonda, a small volcanic island 3 km NW of Sumbawa, with high-alkaline water. With well-developed 'stromatolitic' red algal- microbialite reefs with demosponges in upper ~20m)

Ashton, P.S. (2014)- On the forests of tropical Asia- lest the memory fade. Royal Botanic Gardens Kew and Arnold Arboretum, Harvard University, p. 1-670.

Ashton, P.S. (2017)- Patterns of variation among forests of tropical Asian mountains, with some explanatory hypotheses. Plant Ecology Diversity 10, 5-6, p. 361-377.
(online at: https://www.tandfonline.com/doi/abs/10.1080/17550874.2018.142902)
(Review of modern forests zonation in tropical Asia: lowland forests, lower montane forests, upper montane forests, subalpine thicket/ shrublands)

Atmadipoera, A., S.M. Horhoruw, M. Purba & D.Y. Nugroho (2016)- Variasi spasial dan temporal arlindo di Selat Makassar. J. Ilmu dan Teknologi Kelautan Tropis 8, 1, p. 299-320.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/13221/10223)
('Spatial and temporal variation of Indonesian Throughflow in the Makassar Strait'. On the main axis of southward jet of Indonesian Throughflow in Makassar Straits, mainly following western shelf slope)

Atmadipoera, A., R. Molcard, G. Madec, S. Wijffels, J. Sprintall, A. Koch-Larrouy, Indra Jaya & A. Supangat (2009)- Characteristics and variability of the Indonesian throughflow water at the outflow straits. Deep Sea Research I, 56, 11, p. 1942-1954.
(Revised structure and variability of Indonesian Throughflow Water in major outflow straits (Lombok, Ombai, Timor))

Atmadipoera, A. & P. Widyastuti (2014)- A numerical modeling study of upwelling mechanism in southern Makassar Strait. J. Ilmu dan Teknologi Kelautan Tropis 6, 2, p. 355-371.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/9012/7080)
(On upwelling events in S Makassar Strait during SE Monsoon period, associated with low sea surface temperature and high chlorophyll-a concentrations in seawater. Upwelling controlled by SE monsoon winds and enhanced by Indonesian Throughflow TF Makassar jet that creates large circular eddies flow due to complex topography in triangle area of S Makassar- E Java Sea- W Flores Sea)

Ayers, J.M., P.G. Strutton, V.J. Coles, R.R. Hood & R.J. Matear (2014)- Indonesian throughflow nutrient fluxes and their potential impact on Indian Ocean productivity. Geophysical Research Letters 41, 14, p. 5060-5067.

Bachtiar, A., M. Reza, A. Krisyunianto & Y.S. Purnama (2011)- Sedimentology of Kalianyar Delta, Indramayu, Northwest Java basin: uniques tidal and wave interaction in a supposedly river dominated delta. Proc. Joint 36th HAGI and 40th IAGI Ann. Conv., Makassar, JCM2011-470, 15p.
(Kalianyar Delta modern delta on N coast of Indramayu, NW Java. Morphologically classified as river-dominated 'bird-foot' delta, but field survey common influence of wave and tidal processes)

Bachtiar, A., J. Wiyono, Liyanto, M. Syaiful, Y.S. Purnama et al. (2010)- The dynamic of Mahakam Delta components based on spatial and temporal variations of grab samples, cores, and salinity. Proc. HAGI-SEG Int. Geosciences Conf., Bali 2010, IGCE10-OP-009, 10p.
(Modern Mahakam delta sediments study. Most channel thalwegs devoid of sands; grab samples usually found semi-consolidated clay instead. Active sand transportation and deposition on slopes of point bars and side bars. Shallow cores in lower delta plain generally characterized by clay drapes, suggesting tidal processes)

Baker, E.K., P.T. Harris, J.B. Keene & S.A. Short (1995)- Patterns of sedimentation in the macrotidal Fly River delta, Papua New Guinea. In: B.W. Flemming & A. Bartholomae (eds.) Tidal signatures in modern and ancient sediments, Int. Assoc. Sedimentologists (IAS), Spec. Publ. 24, p. 193-211.

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(Core K12 from 3510m water depth N of N Halmahera spans last 27,000 yrs. Palynology suggests glacial time climate drier than today. This and lower sea level resulted in expansion of Lower Montane oak forests on Halmahera. Surface water salinities probably higher. Also well-developed 'Deep Chlorophyll Maximum layer'. With elevated planktonic forams Neogloboquadrina dutertrei and presence of Ng. pachyderma in glacial times (similar to observed in Sulu Sea by Linsley et al. 1985))

Barmawidjaja, D.M., A.F.M de Jong, K. van der Borg, W.A. van der Kaars & W.J. Zachariasse (1989)- Kau Bay, Halmahera, a late Quaternary palaeoenvironmental record of a poorly ventilated basin. In: J.E. van Hinte et al. (eds.) Snellius-II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, 4, p. 591-605.

Barmawidjaja, D.M., A.F.M de Jong, K. van der Borg, W.A. van der Kaars, W.J.M. van der Linden & W.J. Zachariasse (1989)- The timing of postglacial marine invasion of Kau Bay, Halmahera, Indonesia. Radiocarbon 31, 3, p. 948-956.
(Kau Bay, Halmahera, E Indonesia is small 470m deep marine basin, separated from SW Pacific Ocean by 40m deep shallow sill. Bay water below depth of ~350m devoid of oxygen and high dissolved H2S. Radiocarbon dating on piston cores and study on microfossils demonstrate Kau Bay was freshwater lake in Weichselian times (freshwater diatoms). At 10,000 BP reconnected with open ocean. If sill depth did not change in intervening years, sea level at 10,000 BP stood 40m below present level)

Barrows, T.T. & S. Juggins (2004)- Sea-surface temperatures around the Australian margin and Indian Ocean during the Last Glacial Maximum. Quaternary Science Reviews 24, p. 1017-1047.
(Sea-surface temperature maps for oceans around Australia based on planktonic foraminifera assemblages. During Last Glacial Maximum cooling in tropics of up to 4 °C in E Indian Ocean, mostly between 0- 3 °C elsewhere along equator. High latitudes cooled more, with maximum of 7-9 °C in SW Pacific Ocean)

Baumgart, A., T. Jennerjahn, M. Mohtadi & D. Hebbeln (2010)- Distribution and burial of organic carbon in sediments from the Indian Ocean upwelling region off Java and Sumatra, Indonesia. Deep Sea Research I, 57, 3, p. 458-467.
(On marine organic carbon productivity and preservation in Indian Ocean off Sumatra- Java- Banda Islands. Maximum concentrations of organic carbon (3.0%) and nitrogen (0.31%) in N Mentawai and Savu and Lombok basins. High productivity related to seasonal upwelling in Indian Ocean S of Java-Sumatra between June-November responsible for high carbon accumulation S of E Java- Lombok and in Savu Basin. Better preservation by reduced ventilation contributes to high carbon in N Mentawai)

Benzerara, K., A. Meibom, Q. Gautier, J. Kazmierczak, J. Stolarski et al. (2010)- Nanotextures of aragonite in stromatolites from the quasi-marine Satonda crater lake, Indonesia. In: H.M. Pedley & M. Rogerson (eds.) Tufas and speleothems: unravelling the microbial and physical controls, Geol. Soc., London, Spec. Publ. 336, p. 211-224.
(On composition and texture of aragonite in lacustrine stromatolites from alkaline crator lake of Satonda)

Bird, E.C.F. & O.S.R. Ongkosongo (1980)- Environmental changes on the coasts of Indonesia. United Nations University, 55p.
(online at: www.unu.edu/unupress/unupbooks/80197e/80197E00.htm)
(Overview of coastal progradation in various areas of Indonesia)

Bird, M.I., D. Taylor & C.Hunt (2005)- Palaeoenvironments of insular Southeast Asia during the last glacial period; a savanna corridor in Sundaland? Quaternary Science Reviews 24, 20-21, p. 2228-2242.
(Geomorphology, palynology, biogeography and vegetation/climate modelling suggests N-S 'savanna corridor' through Sundaland continent at Last Glacial Period at time of lowered sea-level. Minimal interpretation of 50-150 km wide zone of open savanna vegetation along divide between S China and Java Seas, forming land bridge between Malay Peninsula, Sumatra, Java and Borneo and served as barrier to dispersal of rainforest-dependent species between Sumatra and Borneo. Savanna corridor may have provided convenient route for rapid early dispersal of modern humans through region and on into Australasia)

Bray, N.A., S. Hautala, J. Chong & J. Pariwono (1996)- Large-scale sea level, thermocline, and wind variations in the Indonesian throughflow region. J. Geophysical Research 101, p. 12239-12254.

Brown, I.M. (1990)- Quaternary glaciations of New Guinea. Quaternary Science Reviews 9, p. 273-280.
(New Guinea mountains covered by glaciers at ~300 ka and at ~700 ka. Mean annual T was at least 6-7°C lower. Glaciers receded by 13 ka BP and New Guinea may have been ice free by 7 ka. Glaciers developed again at ~5 ka. At least four significant re-advances during last 3.5 ka. Little Ice Age ended 120-150 years ago and glaciers retreating to present day)

Brune, S., A.Y. Babeyko, S. Ladage & S.V. Sobolev (2010)- Landslide tsunami hazard in the Indonesian Sunda Arc. Natural Hazards Earth System Sci. 10, p. 589-604.
(online at: https://www.nat-hazards-earth-syst-sci.net/10/589/2010/nhess-10-589-2010.pdf)
(Review of tsunamigenic events triggered by submarine landslides. Largest documented recent slides (SE of Sumba, etc.) have volume of 15-20 km3. Many large recent tsunamigenic landslides have been ultimately triggered by earthquakes)

Brune, S., S. Ladage, A.Y. Babeyko, C. Muller, H. Kopp & S.V. Sobolev (2009)- Submarine landslides at the eastern Sunda margin: observations and tsunami impact assessment. Natural Hazards 54, 2, 547-562.
(online at: http://edoc.gfz-potsdam.de/gfz/get/14283/0/b800b700926b1f854f8f70c2e84b0c4a/14283.pdf)
(New bathymetric data show six large submarine slides at E Sunda margin between C Java and Sumba. Volumes between 1 km^3 in Java fore-arc basin up to 20 km^3 at trench off Sumba and Sumbawa)

Burnett, W.H., V.M. Kamenkovich, G.L. Mellor & A.L. Gordon (2000)- The influence of the pressure head on the Indonesian Seas circulation. Geophysical Research Letters 27, 15, p. 2273-2276.
(online at: https://www.gfdl.noaa.gov/bibliography/related_files/burnett0001.pdf)
(Model suggests pressure difference between Pacific and Indian Ocean does not significantly influence total transport of Indonesian throughflow)

Caline, B. & J. Huong (1992)- New insights into the recent evolution of the Baram Delta from satellite imagery: Bull. Geol. Soc. Malaysia 32, p. 1-13.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm1992012.pdf)

Cane, M.A. & P. Molnar (2001)- Closing of the Indonesian seaway as a precursor to east African aridification around 3-4 million years ago. Nature 411, p. 157-162.

(Closure of Indonesian seaway 3-4 Myr ago may be responsible for global climate changes. N movement of New Guinea, ~5 Myr ago, switched source of flow through Indonesia from warm S Pacific to colder N Pacific waters, decreasing Indian Ocean sea surface temperatures and leading to aridification of E Africa. Changes in equatorial Pacific may have reduced atmospheric heat transport from tropics to higher latitudes, stimulating global cooling and growth of ice sheets)

Cannon, C.H., R.J. Morley & A.B.G. Bush (2009)- The current refugial rainforests of Sundaland are unrepresentative of their biogeographic past and highly vulnerable to disturbance. Proc. National Academy Sciences USA 106, 27, p. 11188- 11193.
(online at: www.pnas.org/content/early/2009/06/18/0809865106.full.pdf)
(Model reconstruction of forest types across exposed Sunda Shelf during Pleistocene Last Glacial Maximum, suggesting rainforests covered substantially larger area than today (see also Wurster et al. 2010 who argue for more savannah vegetation; JTvG))

Cappelli, E.L.G. (2015)- Late Pleistocene variability in Timor Sea hydrology: evidence from paleotemperature proxies. Doct. Thesis Kiel University, p. 1-194.
(online at: http://macau.uni-kiel.de/...)

Cappelli, E.L., G.A. Holbourn, W. Kuhnt & M. Regenberg (2016)- Changes in Timor Strait hydrology and thermocline structure during the past 130 ka. Palaeogeogr. Palaeoclim. Palaeoecology 462, p. 112-124.
(Data from core from 485m depth at S edge of Timor Trough suggest lower thermocline warming during globally cold periods (MIS 4-MIS 2), related to weaker and contracted thermocline ITF and advection of warm-salty Indian Ocean waters)

Cecil, C.B., F.T. Dulong, J.C. Cobb & Supardi (1993)- Allogenic and autogenic controls on sedimentation in the central Sumatra basin as an analogue for Pennsylvanian coal-bearing strata in the Appalachian basin. In: J.C. Cobb & C.B. Cecil (eds.) Modern and ancient coal-forming environments, Geol. Soc. America (GSA), Spec. Paper 286, p. 3-22.
(Modern influx of fluvial sediment to Sunda shelf/ Strait of Malacca from Sumatra restricted by rain forest cover in equatorial ever-wet climate belt. Much of marine and estuarine environments erosional or non-depositional, except for localized deposition in slack water areas, such as down-stream end of islands. Thick (>13m), laterally extensive (>70000 km2) peat deposits forming on poorly drained coastal lowlands)

Cecil, C.B., F.T. Dulong, R.A. Harris, J.C. Cobb, H.G. Gluskoter & H. Nugroho (2003)- Observations on climate and sediment discharge in selected tropical rivers, Indonesia. In: C.C Blaine et al. (eds.) Climate controls on stratigraphy, Soc. Sedimentary Geology (SEPM), Spec. Publ. 77, p. 29-50.
(Factors influencing fluvial sediment discharge include catchment-basin size, relief, gradient, tectonic setting, bedrock lithology, rainfall. Dominant variable affecting fluvial sediment discharge among islands of Indonesia appears to be seasonality in rainfall, regardless of tectonic setting, relief or catchment-basin size)

Chabangborn, A., K.K.A. Yamoah, S. Phantuwongraj & M. Choowon (2018)- Climate in Sundaland and Asian monsoon variability during the last deglaciation. Quaternary Int. 479, p. 141-147.

Christensen, B.A., W. Renema, J. Henderiks, D. de Vleeschouwer, J. Groeneveld, I.S. Castaneda, L. Reuning et al. (2017)- Indonesian Throughflow drove Australian climate from humid Pliocene to arid Pleistocene. Geophysical Research Letters 44, 13, p. 6914-6925.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2017GL072977/epdf)
(Late Miocene- M Pleistocene sedimentary proxy records (incl. IODP Site U1463) show NW Australia underwent abrupt transition from arid to humid climate conditions at 5.5 Ma, likely receiving year-round rainfall. After ~3.3 Ma climate shift to increasingly seasonal precipitation, back to arid interval after 2.4 Ma. Linked to progressive restriction of flow of warm surface currents from Pacific (Indonesian Throughflow))

Clift, P.D. (2006)- Controls on the erosion of Cenozoic Asia and the flux of clastic sediment to the ocean. Earth Planetary Sci. Letters 241, p. 571-580.

(Rates of continental erosion reconstructed from volumes of clastic sediment, most of which offshore. Sediment flux from mainland Asia first peaked in E-M Miocene (24-11 Ma), well before initiation of glacial climate, indicating that rock uplift and precipitation are key controls on erosion over long periods of time. In E Asia faster erosion correlates with more humid, warm climates in E-M Miocene, changing to less erosive, drier climates after 14 Ma when Antarctic glaciation begins. Average sedimentation rates on most E Asian continental margins since 1.8 Ma 5-6 times less than modern fluvial flux)

Clift, P.D. & R.A. Plumb (2008)- The Asian monsoon: causes, history and effects. Cambridge University Press, p. 1-288.
(Asian monsoon large-scale seasonal reversal of normal atmospheric circulation pattern. Low-pressure systems develop in tropics due to rising hot air that cools and descends in subtropics (arid regions). In contrast, summer heating of Asian continent (mainly Tibetan Plateau) generates low-pressure cells and summer rains in S and E Asia. In winter reversed high-P system established, with dry, cold winds blowing out of Asia. Monsoon intensity varies in 21, 40 and 100 thousand year timescale, with periods of glacial advance and retreat: summer monsoons strong and winter monsoons weaker during warm, interglacial periods (reverse during glacial times)

Coleman, J.M., S.M. Gagliano & W.G. Smith (1970)- Sedimentation in a Malaysian high tide tropical delta. In: J.P. Morgan & R.H. Shaver (eds.) Deltaic sedimentation, modern and ancient. Soc. Econ. Min. Paleont. (SEPM), Spec. Publ. 15, p. 185-197.
(Study of sedimentation in Klang and Langat Rivers delta in Malacca Strait)

Consentius, W.U. (1974)- Die Kusten des Sudostlichen Asien. Ph.D. Thesis, Technische Universitat Berlin, p. 1-231.
('The coasts of SE Asia'. Geographic description of coastlines and processes in SE Asia)

Corlett, R.T. (2009)- The ecology of tropical East Asia. Oxford University Press, New York, p. 1-272.
(Review of terrestrial ecology of East Asian tropics and subtropics, from S China to W Indonesia)

Crame, J.A. & B.R. Rosen (2002)- Cenozoic palaeogeography and the rise of modern biodiversity patterns. In: J.A. Crame & A.W. Owen (eds.) Palaeobiogeography and biodiversity change: the Ordovician and Mesozoic-Cenozoic radiations, Geol. Soc., London, Spec. Publ. 194, p. 153-168.

Cresswell, G., A. Frisch, J. Peterson & D. Quadfasel (1992)- Circulation in the Timor Sea. J. Geophysical Research 98, C8, p. 14379-14389.
(Current measurements in Timor Strait suggest transport of about 7 Sv toward Indian Ocean, with about half of this in upper 350m)

Darlan, Y., Y. Noviadi & H. Prasetyo (1996)- Studi proses sedimentasi perairan Serwatu dan sekitarnya, Kepulauan Aru, Maluku Tenggara. Proc. 25th Ann. Conv. Indon. Assoc. Geol. (IAGI), 2, p. 127-147.
(Study of sedimentation processes in waters around Serwatu, Aru Islands, Moluccas')

Dawson, A.G., S. Shi, S. Dawson, T. Takahashi & N. Shuto (1996)- Coastal sedimentation associated with the June 2nd and 3rd, 1994 tsunami in Rajegwesi, Java. Quaternary Science Reviews 15, 8-9, p. 901-912.
(NE Java tsunami deposits)

De Bruyn, M., L. Ruber, S. Nylinder, B. Stelbrink, N.R. Lovejoy, S. Lavoue, H.H. Tan, E. Nugroho et al. (2013)- Paleo-drainage basin connectivity predicts evolutionary relationships across three Southeast Asian biodiversity hotspots. Systematic Biology 62, 3, p. 398-410.

De Bruyn, M., B. Stelbrink, R.J. Morley, R. Hall, G.R. Carvalho, C.H. Cannon, G. van den Bergh, E. Meijaard, I. Metcalfe, L. Boitani, L. Maiorano, R. Shoup & T. von Rintelen (2014)- Borneo and Indochina are major evolutionary hotspots for Southeast Asian biodiversity. Systematic Biology 63, 6, p. 879-901.

(SE Asia (in particular Borneo and Indochina) major 'evolutionary hotspots' for diverse range of fauna- flora. Most region's biodiversity result of accumulation of immigrants and in situ diversification. Colonization events comparatively rare from younger emergent islands like Java, which show increased immigration events)

De Deckker, P. (2016)- The Indo-Pacific Warm Pool: critical to world oceanography and world climate. Geoscience Letters (AOGS) 3, 20, p. 1-12.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-016-0054-3)
(Review of climatic significance of Indo-Pacific Warm Pool, a large area with permanent surface T >28 °C in SW Pacific/ Indonesian region ('heat and steam engine' of globe))

De Deckker, P., N.J. Tapper & S. van der Kaars (2002)- The status of the Indo-Pacific Warm Pool and adjacent land at the Last Glacial Maximum. Global Planetary Change 35, p. 25-35.
(During Last Glacial Maximun significant drop in precipitation in Warm Pool region that would explain increase in salinity while Sea surface T decreased by ~2°C, causing decrease of atmospheric convection over Indo-Pacific Warm Pool. Drier atmosphere and diminished level of cloud cover also reduced nocturnal temperatures at elevation, forcing tree line to drop and glaciers to much lower altitudes than today)

Dewi, A.Y. & S.S. Surjono (2010)- Tipe-tipe pembentukan delta di Pantai utara Jawa. Proc. 39th Ann. Conv. Indon. Assoc. Geol. (IAGI), Lombok, PIT-IAGI-2010-287, 12p.
('Delta sedimentation types along North coast of Java'. Two main types: (1) fluvial-dominated Mississippi/ birdfoot type and (2) Sao Francisco type (more dominant marine control and low sediment supply)

Ding, X., F. Bassinot, F. Guichard & N.Q. Fang (2013)- Indonesian Throughflow and monsoon activity records in the Timor Sea since the last glacial maximum. Marine Micropaleontology 101, p. 115-126.
(online at: http://www.cugb.edu.cn/upload/20600/papers_upload/291.pdf)
(Foraminifera-based multi-proxy study in main Indonesian Throughflow (ITF) outflow area of Timor Sea)

Ding, X., F. Guichard, F. Bassinot, L. Labeyrie & N.Q. Fang (2002)- Evolution of heat transport pathways in the Indonesian Archipelago during last deglaciation. Chinese Science Bull. 47, 22, p. 1912-1917.

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(online at: http://www.whoi.edu/fileserver.do?id=186164&pt=2&p=17766)
(Climate proxy data 30 surface marine sediment samples from throughout Indo-Pacific warm pool. Sediment core from offshore NE Borneo show broadly similar vegetation during Last Glacial Maximum and Holocene, suggesting that, despite generally drier glacial conditions, no pronounced dry season. Core off Sumba indicates enhanced dry season aridity and water stress during most recent glaciation)

Ehlert, C., M. Frank, B.A. Haley, U. Boniger, P. De Deckker & F.X. Gingele (2011)- Current transport versus continental inputs in the eastern Indian Ocean: radiogenic isotope signatures of clay size sediments. Geochem. Geophys. Geosystems 12, Q06017, p.
(Nd, Sr and Pb of clay-sized sediments allow tracing of source areas of sediment and current transport off NW Australia and SW of Java)

Engelhart, S.E., B.P. Horton, D.H. Roberts, C.L. Bryant & D.R. Corbett (2007)- Mangrove pollen of Indonesia and its suitability as a sea-level indicator. Marine Geology 242, p. 65-81.
(SE Sulawesi mangrove zonations parallel to shoreline and dominated by Rhizophoraceae, with Avicennia, Heritiera and Sonneratia also important. Elevation significant control on distribution of pollen assemblages)

Fan, W., Z. Jian, Z. Chu, H. Dang, Y. Wang, F. Bassinot, X. Han & Y. Bian (2018)- Variability of the Indonesian Throughflow in the Makassar Strait over the last 30 ka. Nature Scientific Reports 8, 5678, p. 1-8.
(online at: https://www.nature.com/articles/s41598-018-24055-1.pdf)

(Thermocline T and salinity gradient across Makassar Strait increased during the last glacial period relative to Holocene and was significantly larger during 13.4~19 ka BP and 24.2~27 ka BP)

Feng, M., N. Zhang, Q. Liu & S. Wijffels (2018)- The Indonesian throughflow, its variability and centennial change. Geoscience Letters 5, 3, p. 1-10.
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Ffield, A.L., K. Vranes, A.L. Gordon, R.D. Susanto & S.L. Garzoli (2000)- Temperature variability within Makassar Strait. Geophysical Research Letters 27, 2, p. 237-240.
(Average thermocline T varies with S-ward Makassar transport volume: during high volume transport, average T of thermocline also high)

Fieux, M., C. Andrie, P. Delecluse, A.G. Ilahude, A. Kartavtseff, F. Mantisi, R. Molcard & J.C. Swallow (1994)- Measurements within the Pacific-Indian oceans throughflow region. Deep Sea Research I, 41, 7, p. 1091-1130.
(online at: https://core.ac.uk/download/pdf/39857022.pdf)
(Two hydrographic sections between Australian shelf and Indonesia, where throughflow between Pacific Ocean and Indian Ocean emerges. Subtropical and Central waters separated from waters of Indonesian seas by sharp hydrological front, around 13°30 S, below thermocline down to 700 m. Off Sumba, Savu, Roti and Timor channels a core of low salinity and high oxygen near-surface water in axis of each channel, suggesting strong currents from Indonesian seas towards Indian Ocean. Deep water flowing in opposite direction, from Indian Ocean to Timor basin below 1400 m to sill depth)

Fieux, M., R. Molcard & A.G. Ilahude (1996)- Geostrophic transport of the Pacific-Indian Oceans throughflow. J. Geophysical Research 101, C5, p. 12421-12432.

Fontaine, H. (1971)- Depots coquilliers du delta du Mekong. Archives Geol. Vietnam 14, p. 135-141.
('Shell deposits of the Mekong Delta'. During Flandrian large area of Mekong delta was covered by sea, which after withdrawal left traces of paleo-shorelines and shell deposits. C14 ages of shells 4150- 5680 BP)

Gagan, M.K., E.J. Hendy, S.G. Haberle & W.S. Hantoro (2004)- Post-glacial evolution of the Indo-Pacific warm pool and El Nino-Southern Oscillation. Quaternary Int. 118, p. 127-143.
(Sea surface temperature of Indo-Pacific Warm Pool during Last Glacial Maximum ~3°C cooler than today)

Galey, M.L., A. van der Ent, M.C.M. Iqbal & N. Rajakaruna (2017)- Ultramafic geoecology of South and Southeast Asia. Botanical Studies 58,18, p. 1-28.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40529-017-0167-9.pdf)
(Globally, ultramafic outcrops known for floras with high levels of endemism, including plants adapted to nickel or manganese hyperaccumulation. Soils derived from ultramafic regoliths generally nutrient-deficient, with major cation imbalances and high concentrations of potentially toxic trace elements, especially nickel. SE Asian region large surface occurrences of ultramafic regoliths, but geoecology still poorly studied)

Gallagher, S.J., M.W. Wallace, C.L. Li, B. Kinna, J.T. Bye, K. Akimoto & M. Torii (2009)- Neogene history of the West Pacific Warm Pool, Kuroshio and Leeuwin currents. Paleoceanography 24, PA1206, p. 1-27.
(Presence of Indo-Pacific larger foraminifera and smaller taxa Asterorotalia and Pseudorotalia on Australia NW Shelf at ~4 Ma and from 1.6- 0.8 Ma suggest periods of increased Indonesian Throughflow (connecting W Pacific Warm Pool and Indian Ocean). From 10 to 4.4 Ma lack of biogeographic connectivity between Pacific and Indian Oceans suggests Indonesian Throughflow restriction, when collision of Australia and Asia trapped warmer waters in Pacific, creating WPWP biogeographic province from equator to 26°N)

Ganssen, G., S.R. Troelstra, B. Faber, W.A. van der Kaars & M. Situmorang (1989)- Late Quaternary paleoceanography of the Banda Sea, Eastern Indonesian piston cores (Snellius-II expedition, cruise G5). In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, 4, p. 491-494.

(Late Quaternary paleoclimatology and oceanography deduced from two Banda Sea piston cores. Two-step deglaciation seen in oxygen isotopes, but did not lead to higher surface water temperatures but to wetter climate as recorded in palynofacies. Increasing monsoon regime around 10 ka. At ~10.5 ka climate got wetter. Upwelling intensity increased around 9.2 ka and monsoonal intensity decreased again at ~2.7 ka)

Gathorne-Hardy, F.J., Syaukani, R.G. Davies, P. Eggleton & D.T. Jones (2002)- Quaternary rainforest refugia in south-east Asia: using termites (Isoptera) as indicators. Biological J. Linnean Soc. 75, p. 453-466.
(online at: https://academic.oup.com/biolinnean/article/75/4/453/2639628)
(In SE Asia, during Quaternary glaciations increased seasonality and sea level drops of ~120m caused fragmentation of rainforest. During Last Glacial Maximum, most of Thailand, Peninsula Malaysia, W and S Borneo, E and S Sumatra, and Java probably covered by savannah. Rainforest refugia probably present in N and E Borneo, N and W Sumatra and Mentawai islands.)

Gingele, F.X., P. De Deckker, A. Girault & F. Guichard (2002)- History of the South Java Current over the past 80 ka. Palaeogeogr. Palaeoclim. Palaeoecology. 183, p. 247-260.
(Sediment core below South Java Current (SJC) used to reconstruct paleoclimate/ paleoceanography of past 80 ka. Considerable contrasts from glacial to Holocene. Presently below low-salinity tongue from Java Sea via Sunda Strait, with characteristic terrigenous matter. During last glacial stage sea level was lower, Sunda Strait was closed and terrigenous supply from that source ceased. Circulation patterns alternatively dominated by N Hemisphere E Asian Monsoon system and S Hemisphere Australian Monsoon system. Between 20-12 ka, (Australian) SE Winter Monsoon reached maximum and intensified W flowing S Java Current)

Godfrey, J.S. (1996)- The effect of the Indonesian Throughflow on ocean circulation and heat exchange with atmosphere: a review. J. Geophysical Research 101, p. 12217- 12238.

Godfrey, J.S., A.C. Hirst, and J. Wilkin (1993)- Why does the Indonesian throughflow appear to originate from the North Pacific? J. Physical Oceanography 23, p. 1087-1098.

Goltenboth, F., K.H. Timotius, P.P. Milan & J. Margraf (eds.) (2006)- Ecology of insular Southeast Asia, The Indonesian Archipelago. Elsevier Science, p. 1-568.
(Reviews of modern marine and terrestrial ecosystems of Indonesia (mainly biology))

Gordon, A.L. (1995)- When is appearance reality? A comment on why does the Indonesian throughflow appear to originate from the North Pacific. J. Physical Oceanography 25, p. 1560-1567.
(online at: http://journals.ametsoc.org/doi/pdf/10.1175/1520-0485%281995%29025%3C1560%3AWIARAC%3E2.0.CO%3B2)
(Transfer of water from Pacific to Indian Oceans in the Indonesian Seas comprised primarily of North Pacific water masses)

Gordon, A.L. (2005)- Oceanography of the Indonesian Seas and their throughflow. Oceanography 18, 4, p. 14-27.
(online at: www.tos.org/oceanography/issues/issue_archive/issue_pdfs/18_4/18.4_gordon.pdf)
(Nice review of Indonesian Throughflow)

Gordon, A., A. Ffield & A.G. Ilahude (1994)- Thermocline of the Flores and Banda Seas. J. Geophysical Research 99 (C9), p. 18235-18242.

Gordon, A.L. & R.A. Fine (1996)- Pathways of water between the Pacific and Indian Oceans in the Indonesian seas. Nature 379, p. 146-149.
(Indonesian Throughflow dominated by (1) low-salinity well ventilated N Pacific water through Makassar Strait upper thermocline and (2) more saline S Pacific water through lower thermocline of E Indonesian Seas)

Gordon, A.L., C.F. Giulivi, & A.G. Ilahude (2003)- Deep topographic barriers within the Indonesian seas. In: F. Schott (ed.) Physical oceanography of the Indian Ocean during the WOCE period, Deep Sea Research II, 50, p. 2205-2228.
(Pacific water spills over deep topographic barriers into Sulawesi, Seram and Banda seas. W-most flow through Makassar Strait shallower barriers: 1350m deep Sangihe Ridge, providing access to Sulawesi Sea and 680m deep Dewakang Sill between S Makassar Strait- Flores Sea. Along E path, Pacific water must flow over 1940 m barrier of Lifamatola Passage before passing into deep Seram and Banda Seas. Deepest barrier encountered by W and E paths is 1300-1450 m Sunda Arc sill near Timor. Savu Sea connected to Banda Sea down to 2000 m, but closed to Indian Ocean at depth shallower than Timor Sill. Density-driven overflows force upwelling of resident waters within confines of basins)

Gordon, A.L., B.A. Huber, E.J. Metzger, R.D. Susanto, H.E. Hurlburt & T.R. Adi (2012)- South China Sea throughflow impact on the Indonesian throughflow. Geophysical Research Letters 39, L11602, 11, p. 1-7.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2012GL052021)
(Increased SCS throughflow during El Nino events increases S-ward flow of buoyant surface water through Sulu Sea into N Makassar Strait, inhibiting tropical Pacific surface water injection into Makassar Strait)

Gordon, A.L., S. Ma, D.B. Olson, P. Hacker, A. Ffield, L.D. Talley, D. Wilson & M. Baring (1997)- Advection and diffusion of Indonesian throughflow water within the Indian Ocean South Equatorial Current. Geophysical Research Letters 24, 21, p. 2573-2576.
(Warm, low salinity Pacific water flows through Indonesian Seas into E Indian Ocean, spreading within S Equatorial Current. Low salinity throughflow trace, centered along 12°S, stretches across Indian Ocean, separating monsoon-dominated regime of N Indian Ocean from subtropical stratification to S)

Gordon, A.L. & J.L. McClean (1998)- Thermohaline stratification of the Indonesian seas: model and observations. J. Physical Oceanography 29, p. 198-216.
(Oceanographic models)

Gordon, A.L., R.D. Susanto & A. Ffield (1999)- Throughflow within the Makassar Strait. Geophysical Research Letters 26, 21, p. 3325-3328.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/1999GL002340)
(Velocity measurements in constriction in Makassar Straits near 3°S suggest average throughflow is 9.3 Sv. Throughflow within Makassar Strait can account for all of Pacific to Indian interocean transport)

Gordon, A.L., R.D. Susanto, A. Ffield, B.A. Huber, W. Pranowo & S. Wirasantosa (2008)- Makassar Strait throughflow, 2004 to 2006. Geophysical Research Letters 35, L24605, p. 1-5.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2008GL036372)

Gordon, A.L., R.D. Susanto & K. Vranes (2003)- Cool Indonesian throughflow as a consequence of restricted surface layer flow. Nature 425, p. 824-828.
(online at: https://www.atmos.umd.edu/~dwi/papers/gordon_dwi_nature03.pdf)
Within Makassar Strait (primary pathway of Indonesian throughflow), flow far cooler than estimated earlier. During boreal winter monsoon, wind drives buoyant, low-salinity Java Sea surface water into S Makassar Strait, creating N-ward pressure gradient in surface layer of strait. This surface 'freshwater plug' inhibits warm surface water from Pacific Ocean from flowing S into Indian Ocean, leading to cooler Indian Ocean sea surface, which may weaken Asian monsoon. Summer wind reversal eliminates obstructing pressure gradient, by transferring more-saline Banda Sea surface water into S Makassar Strait)

Gourlan, A.T., L. Meynadier & C.J. Allegre (2008)- Tectonically driven changes in the Indian Ocean circulation over the last 25 Ma: Neodymium isotope evidence. Earth Planetary Sci. Letters 267, p. 353-364.
(Nd isotopic composition of Indian and Pacific Ocean cores for past 25 Ma reflect paleo-oceanography. Prior to 14 Ma broad passage between Indian and Pacific Oceans. Progressive closure of Indonesian gateway due to N movement of Australia and S-ward motion of Sunda block induced reorganization of paleoceanic circulation

at ~14 Ma. Further reduced flux of Pacific water into Indian Ocean between 4- 2.5 Ma caused by final closure of Indonesian Gateway)

Griffiths, M.L., R.N. Drysdale, M.K. Gagan, J.X. Zhao, J.C. Hellstrom, L.K. Ayliffe & W.S. Hantoro (2013)- Abrupt increase in East Indonesian rainfall from flooding of the Sunda Shelf ~9500 years ago. Quaternary Science Reviews 74, p. 273-279.
(Stalagmite record from Liang Luar Cave, Flores, suggests rapid increase in Indonesian monsoon rainfall at ~9.5 ka, synchronous with rapid expansion of rainforest in NE Australia, regional freshening of S Makassar Strait and ~1.5 °C cooling in upper thermocline of Timor Sea, indicative of reduced surface heat transport by Indonesian Throughflow when Java Sea opened during postglacial sea-level rise. Increase in monsoon rainfall tied to sudden increase in ocean surface area and/or temperature in monsoon source region as Sunda Shelf flooded during deglaciation)

Gupta, A. (ed.) (2005)- The physical geography of Southeast Asia. Oxford University Press, Oxford, p. 1-440.

Hanebuth, T.J.J., U. Proske, Y. Saito, V. Nguyen & K. Thi (2012)- Early growth stage of a large delta-transformation from estuarine-platform to deltaic-progradational conditions (the northeastern Mekong River Delta, Vietnam). Sedimentary Geology 261-262, p. 108-119.
(Mekong Delta early delta growth during transgression-related inundation between 8 ka BP (maximum flooding) and 5.7 ka BP (sea-level highstand), characterized by tide-and marine-influenced nearshore conditions with extensive mangrove and tidal-flat deposits aggrading on wide abrasion platform. Onset of regression/ progradation at ~4.8 ka)

Hantoro, W.S. (1993)- Dynamics of Indian-Pacific ocean gateways: Pleistocene sea-level study in Savu area using uplifted coral reef terraces. In: F. Hehuwat et al. (eds.) Proc. Int. Workshop on Neogene Evolution of Pacific Ocean Gateways, Bandar Lampung 1993, p. 21-28.

Hantoro, W.S. (1996)- Quaternary sea level variations in the Pacific- Indian Ocean gateways: response and impact. Quaternary Int. 37, p. 73-80.
(On Pacific to Indian Ocean water flow during last glacial maximum)

Harris, P.T., E.K. Baker, A.R. Cole & S.A. Short (1993)- A preliminary study of sedimentation in the tidally dominated Fly River delta, Gulf of Papua. Continental Shelf Research 13, 4, p. 441-472.
(Tidal currents dominate in transport of sandy sediments throughout Fly River Estuary, PNG)

Harris, P.T., M.G. Hughes, E.K. Baker, R.W. Dalrymple & J.B. Keene (2004)- Sediment transport in distributary channels and its export to the pro-deltaic environment in a tidally dominated delta: Fly River, Papua New Guinea. Continental Shelf Research 24, 19, p. 2431-2454.

Hautala, S., J. Reid & N. Bray (1996)- The distribution and mixing of Pacific water masses in the Indonesian seas. J. Geophysical Research 101, C5, p. 12375-12389.

Hautala, S., J. Sprintall, J.T. Potemra, J.C. Chong, W. Pandoe, N. Bray & A. Ilahude (2001)- Velocity structure and transport of the Indonesian Throughflow in the major straits restricting flow into the Indian Ocean. J. Geophysical Research 106, p. 19527-19546.

Heads, M. (2002)- Regional patterns of biodiversity in New Guinea animals. J. Biogeography 29, p. 285-294.

Heads, M. (2003)- Ericaceae in Malesia: vicariance biogeography, terrane tectonics and ecology. Telopea 10, 1, p. 311-449.
(online at: www.rbgsyd.nsw.gov.au/_data/assets/pdf_file/0006/72726/Tel10Hea311.pdf)
(Paper discussing present-day plant distribution in SE Asia (mainly Erica, Rhododendron groups) and relation to plate tectonic history. Many terranes or groups of terranes have endemic species. Many distributions are hard to explain with present-day ecology, but can be understood through tectonic history)

Heaney, L.R. (1991)- A synopsis of climatic and vegetational change in Southeast Asia. Climatic Change 19, 1-2, p. 53-61.
(Tropical rain forest in SE Asia developed in extensive archipelago during past 65 My or more. Miocene rain forest extended further N (to S China and Japan). Pleistocene development of continental glaciers at high latitudes associated in SE Asia with lowered sea level, cooler temperatures, and modified rainfall patterns. SE Asian vegetation during last glacial maximum (ca. 18,000 BP) different from that of today, with increase in extent of montane vegetation and savannah and decline in rain forest)

Hehanussa, P.E., S. Hadiwisastra & S. Djoehanah (1975)- Sedimentasi delta baru Cimanuk. Geologi Indonesia 3, 1, p. 21-35.
('Sedimentation of the new Cimanuk delta', NW Java)

Heikoop, J.M., C.J. Tsujita, M.J. Risk, T. Tomascik & A.J. Mah (1996)- Modern iron ooids from a shallow-marine volcanic setting; Mahengetang, Indonesia. Geology 24, 8, p. 759-762.
(Unconsolidated deposit of iron ooids and pisoids off volcanic island Mahengetang, Sangihe Arc, in shallow-marine setting, in area of venting of hydrothermal fluids and expulsion of gas. Ooids composed of concentric accretionary layers of limonite admixed with amorphous silica, precipitated around andesitic rock fragments)

Hendrizan, M., W. Kuhnt & A. Holbourn (2017)- Variability of Indonesian Throughflow and Borneo Runoff During the Last 14 kyr. Paleoceanography 32, 10, p. 1054-1069.
(Reconstruction of hydrological changes in Makassar Strait over last 14 kyr from Core SO217-18517 off Mahakam Delta (698 m water depth). Sea surface T based on Mg/Ca of Globigerinoides ruber, etc. provide evidence for increased precipitation during Bølling-Allerød (BA) and E Holocene, and for warmer/ more saline surface waters and decrease in Indonesian Throughflow during Younger Dryas (YD). Changes in Makassar Strait surface hydrology reflect S-ward displacement of Intertropical Convergence Zone)

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(online at: http://journals.ametsoc.org/doi/pdf/)
(Global Climate Modeling of effects of variations in Indonesian Throughflow. Throughflow generally warms Indina Ocean and cools the Pacific)

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Hoeksema, B.W. (2007)- Delineation of the Indo-Malayan centre of maximum marine biodiversity: the coral triangle. In: W. Renema (ed.) Biogeography, time and place: distributions, barriers and islands, Topics in Geobiology 29, Springer, p. 117-178.
(Ranges of many tropical marine species overlap in centre of maximum marine biodiversity in Indo-Malayan region ('East Indies Triangle': Malaysia, Philippines, Indonesia and Papua New Guinea))

Hoekstra, P. (1989)- River outflow, depositional processes and coastal morphodynamics in a monsoon-dominated deltaic environment, East Java, Indonesia. Doct. Thesis University of Utrecht, Netherlands Geogr. Studies (Koninklijk Nederlands Aardrijkskundig Genootschap) 87, p. 1-214.
(On sediment discharge at Solo and Brantas/ Porong River deltas, E Java. Part of 1984-1985 Snellius II program)

Hoekstra, P. (1989)- Hydrodynamics and depositional processes of the Solo and Porong Deltas, East Java, Indonesia. In: W.J.M. van der Linden (ed.) Coastal Lowlands, Proc. KNGMG Symposium 'Coastal lowlands geology and Geotechnology', Kluwer Acad. Publ., Dordrecht, p. 161-173.
(High input of sediment into coastal waters by Solo and Porong rivers resulted in rapid development of two-delta-systems. Solo delta mud-dominated, rapidly prograding elongate (single-finger) delta, while Porong delta is lobate, multidistributary delta)

Hoekstra, P. (1993)- Late Holocene development of a tide-induced elongate delta, the Solo delta, East Java. Sedimentary Geology 83, p. 211-233.
(Review of delta of monsoonal Solo River. Late Quaternary mud-dominated, rapidly prograding, elongate 'single-finger' delta with well-developed natural levees)

Hoekstra, P., R.F. Nolting & H.A. van der Sloot (1989)- Supply and dispersion of water and suspended matter of the rivers Solo and Brantas into the coastal waters of East Java, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 23, 4, p. 501-515.

Hoekstra, P. & Tiktanata (1988)- Coastal hydrodynamics, geomorphology and sedimentary environments of two major Javanese river deltas; program and preliminary results from the Snellius-II expedition (Indonesia). J. Southeast Asian Earth Sci. 2, 2, p. 95-106.
(Study of river outflow, sediment transport, depositional facies and delta morphology of Solo and Porong river deltas, E Java. Very high denudation rates. Sediment transport mainly restricted to wet season. Solo delta single-finger delta. Porong delta half-circular, lobate delta with multidistributary network of channels)

Holbourn, A., W. Kuhnt, H. Kawamura, Z. Jian, P. Grootes, H. Erlenkeuser & J. Xu (2005)- Orbitally paced paleoproductively variations in the Timor Sea and Indonesian Throughflow variability during the last 460 kyr. Paleoceanography 20, 3, PA3002, p. 1-18.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004PA001094)
(Timor Sea, productivity fluctuations over last 460 kyr strongly influenced by monsoonal wind patterns off NW Australia (23 and 19 kyr). Also modulated by sea level-related variations in intensity of Indonesian Throughflow (100 kyr))

Holbourn, A., W. Kuhnt & J. Xu (2011)- Indonesian Throughflow variability during the last 140 ka: the Timor Sea outflow. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geol. Soc. London, Spec. Publ. 355, p. 283-303.
(Steeper thermocline T gradient in Timor Strait than in E Indian Ocean during glacials, implying decrease in Indonesian Throughflow cool thermocline outflow. Major freshening and cooling of thermocline waters at ~9.5 ka, when sea level rose above critical threshold, allowing establishment of shallow marine connection from S China Sea to Java Sea)

Hoogendoorn, R.M. (2006)- The impact of changes in sediment supply and sea-level on fluvio-deltaic stratigraphy. Ph.D. Thesis, Technische Universiteit Delft, p. 1-153. *(Unpublished)*
(online at: repository.tudelft.nl/assets/uuid.../ceg_hoogendoorn_20060131.pdf
(With chapter of Late Holocene evolution of Mahakam Delta, E Kalimantan, based on Storms et al. (2005))

Hope, G.S. (2001)- Environmental change in the Late Pleistocene and later Holocene at Wanda site, Soroako, South Sulawesi, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 171, p. 129-145.

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(On Pleistocene glaciation of Mt Kinabalu (4100m), Sabah, above ~3000m)

Hope, G.S. (2005)- The Quaternary in Southeast Asia. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 24-37.

Hope, G.S. (2015)- Peat in the mountains of New Guinea. Mires and Peat 15, 13, p. 1-21.
(online at: http://mires-and-peat.net/media/map15/map_15_13.pdf)
(Peatlands common in montane areas above 1000m in New Guinea and extensive above 3000m. Montane mires up to 4-8m deep and up to 30,000 years in age. Above 3000m peat soils form under blanket bog on slopes as

well as on valley floors. Typical peat depths 0.5-1 m on slopes, but valley floors up to 10m of peat. Peats record vegetation shifts at 28, 17-14 and 9 ka and variable history of human disturbance from 14 ka)

Hope, G.S., A.P. Kershaw, S. van der Kaars, X. Sun, P.M. Liew, L.E. Heusser, H. Takahara et al. (2004)- History of vegetation and habitat change in the Austral-Asian region. Quaternary Int. 118, p. 103-126.
(Climate reconstruction of last 200kyrs from Russian Arctic to SE Asia and SW Pacific)

Horton, B.P., P.L. Gibbard, G.M. Milne, R. J. Morley, C. Purintavaragul & J.M. Stargardt (2005)- Holocene sea levels and palaeoenvironments of the Malay-Thai Peninsula, southeast Asia. The Holocene 15, 8, p. 1199-1213.
(Sedimentology and palynology studies at Great Songkhla Lakes and other areas of Malay-Thai Peninsula suggest Holocene relative sea level rise from -22 m at ~9500 yr BP to mid-Holocene high stand of 4850-4450 yr BP, followed by sea-level fall at steady at ~1.1 mm/yr)

Huang, Y.S., T.Q. Lee & S.K. Hsu (2011)- Milankovitch scale environmental variation in the Banda Sea over the past 820 ka; fluctuation of the Indonesian through-flow intensity. J. Asian Earth Sci. 40, 6, p. 1180-p. 1188.
(Environmental variation in Banda Sea over past 820 ka from core MD012380 data. Magnetic spectral data show Milankovitch periods, especially eccentricity period (400-ka and 100-ka) after 420 ka, but before 420 ka obliquity (41-ka) and precession (23-ka and 19-ka) cycles. In Banda Sea main factor controlling variation of magnetic minerals fluctuation of Indonesian Throughflow intensity due to sea-level change)

Hummel, K. (1931)- Sedimente indonesischer Susswasserseen. Archiv fur Hydrobiologie, Suppl.-Band 8, p. 615-676.
('Sediments of Indonesian fresh water lakes'. Analyses of sediment samples from lakes on Java and Sumatra)

Husein, S. (2006)- Tidal influence on sedimentation processes of the Mahakam Delta, East Kalimantan. Proc. 35th Ann. Conv. Indon. Assoc. Geol. (IAGI), Pekanbaru, 13p.
(Hydrodynamic measurements and bottom samples study in Mahakam Delta. Sand at bottom of distributaries at delta apex and gradually fines seaward but does not extend to channel mouths. Most bedload sediment transport during spring tide. Mud dominates offshore, in estuaries and distal reaches of distributaries. Sand-mud couplets upstream to at least delta apex. Benthic marine organisms up to 20 km upstream in distributaries. Fluvial dominance constrained to upper reaches of active distributaries, tides most important process on delta)

Husein, Salahuddin (2008)- Modern sediment dynamics and depositional systems of the Mahakam Delta, Indonesia Ph.D. Thesis, Universiti Brunei Darussalam, Bandar Seri Begawan, p. 1-740. *(Unpublished)*

Husein, Salahuddin & J.J. Lambiase (2005)- Modern sediment dynamics of the Mahakam Delta. Proc. 30th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, 1, p. 367-379.
(Description of present-day Mahakam Delta environments. Mixed fluvial and tide-dominated delta)

Ilahude, A.G. & A.L. Gordon (1996)- Water masses of the Indonesian Seas Throughflow. Proc. Third Int. IOC-WESTPAC Scientific Symp., Bali 1994, p. 572-587.

Ilahude, A.G. & A.L. Gordon (1996)- Thermocline stratification within the Indonesian Seas. J. Geophysical Research 101, C5, p. 12401-12410.
(Makassar Straits carries bulk of Pacific water throughflow, consisting of North Pacific water (upper thermocline Smax) and North Pacific Intermediate Water (lower thermocline Smin). Relatively salty water of South Pacific origin in lower thermocline in Seram and S Moluccu seas, particularly in NW monsoon)

*Iwatani, H., M. Yasuhara, Y. Rosenthal & B.K. Linsley (2018)- Intermediate-water dynamics and ocean ventilation effects on the Indonesian Throughflow during the past 15,000 years: ostracod evidence. Geology 46, 6, p. 567-570.
(Ostracods in core from central part of Makassar Strait suggest warm water/ low oxygen water fauna and species diversity rapidly increased at ~12 ka, reaching maxima during Younger Dryas. Interpreted as response to stagnation of intermediate water due to decline in Inonesian Throughflow intensity. After ~7 ka, ostracod

faunal composition changed to deeper, colder and high oxygen fauna, responding to deglacial E Holocene sea-level rise. Etc.)

James, N.P., L.B. Collins, Y. Bone & P. Hallock (1999)- Rottnest shelf to Ningaloo reef: coolwater to warm-water carbonate transition on the continental shelf of Western Australia. J. Sedimentary Res. 69, p. 1297-1321.
(W continental margin from Cape Naturaliste to NE Cape 1200km long and with carbonate deposition throughout. Temperate (cool) water in S to tropical in N, influenced by Leeuwin current)

Jian, Z., B. Huang, W. Kuhnt & H.L. Lin (2001)- Late Quaternary upwelling intensity and East Asian monsoon forcing in the South China Sea. Quaternary Research 55, p. 363-370.

Kamaludin B. & B.Y. Azmi (1997)- Interstadial records of the last glacial period at Pantai Remis, Malaysia. J. Quaternary Science 12, 5, p. 419-434.
(Two eustatic high sea stands during last glacial period recognised at Pantai Remis, both lower than present-day sea-level: (1) -14.6m , synchronous with Oyxgen Isotope Stage 5a ; (2) -4.3 m , dated as ~54ka. Palynology data show interstadial coastal Pandanus and mangrove swamps, succeeded by mixed freshwater swamp forests of Campnosperma- Calophyllum assemblage, followed by drier mixed swamp forest)

Kamikuri, S. & T.C. Moore (2017)- Reconstruction of oceanic circulation patterns in the tropical Pacific across the Early/Middle Miocene boundary as inferred from radiolarian assemblages. Palaeogeogr. Palaeoclim. Palaeoecology 487, p. 136-148.
(Reconstruction of changes in tropical Pacific oceanic circulation patterns across E-M Miocene boundary based on radiolarian assemblages at IODP Site U1335 in E tropical Pacific. Upwelling taxa increased during four intervals between 18.4-13.4 Ma. Sea surface T relatively high from 16.8-16.0 Ma and gradually decreased from 16.0-14.6 Ma and thereafter to 12.7 Ma. Starting around 17 Ma radiolarian assemblages dominated by different taxa in E and W tropical Pacific, indicating deeper thermocline in W. Increasing difference between E and W since latest E Miocene tied to closure of Indo-Pacific seaway and development of W Pacific warm pool along with development of strong Equatorial Undercurrent)

Karas, C., D. Nurnberg, A.K. Gupta, R. Tiedemann, K. Mohan & T. Bickert (2009)- Mid-Pliocene climate change amplified by a switch in Indonesian subsurface throughflow. Nature Geoscience 2, June 2009, p. 434-438.
(Partial closing of Indonesian Gateway between 4-3 Ma supposedly triggered switch in source of waters feeding Indonesian Throughflow into Indian Ocean from warm- salty S Pacific water to cool and relatively fresh N Pacific Ocean waters. Planktonic foraminifera suggest surface conditions in E tropical Indian Ocean rel. stable from 5.5- 2 Ma, but subsurface waters freshened and cooled by about 4°C between 3.5- 2.95 Ma. Restriction of Indonesian Gateway led to cooling and shoaling of thermocline in tropical Indian Ocean)

Karas, C., D. Nurnberg, R. Tiedemann & D. Garbe-Schonberg (2011)- Pliocene Indonesian Throughflow and Leeuwin Current dynamics: implications for Indian Ocean polar heat flux. Paleoceanography 26, PA2217, 9p.
(Planktonic foraminifera reflect Pliocene hydrography of W tropical Indian Ocean (Site 709C) and Leeuwin Current in E subtropical Indian Ocean (Site 763A) in response to Indonesian Gateway dynamics. Indonesian Throughflow and warm S-flowing Leeuwin Current off W Australia are essential for polar heat transport in Indian Ocean. During 3.5-3 Ma, sea surface T Leeuwin Current area 2-3°C cooler than rather unchanged sea surface T from tropical Indian Ocean, probably induced by tectonically reduced surface Throughflow)

Kawamura, H., A. Holbourn & W. Kuhnt (2006)- Climate variability and land-ocean interactions in the Indo-Pacific Warm Pool: a 460-ka palynological and organic geochemical record from the Timor Sea. Marine Micropaleontology 59, 1, p. 1-14.
(Climatic conditions in W Timor Sea and adjacent NW Australia reconstructed for last 460 ka from IMAGES Core MD01-2378. Reduced precipitation and elevated productivity characterize glacial stages. Long-term reduction in precipitation over last 320 ka in two steps at ~300 ka and 180 ka BP. Paleoproductivity and paleoclimate appear to be related to precession-controlled Australian monsoon system)

Kazmierczak, J. & S. Kempe (1993)- Recent cyanobacterial counterparts of Paleozoic *Wetheredella* and related problematic fossils. Palaios 7, p. 294-304.
(Recent calcareous structures resembling stromatolites generated by cyanobacteria in alkaline crater lake of small Satonda island, N of Sumbawa)

Kempe, S. & J. Kazmierczak (1990)- Chemistry and stromatolites of the sea-linked Satonda Crater Lake, Indonesia: A recent model for the Precambrian sea? Chemical Geology 81, 4, p. 299-310.
(First discovery of Recent stromatolites, produced by coccoid cyanobacteria in crater Lake of Satonda Island near Sumbawa. Started to grow 4000 yrs ago. pH (8.45) and calcite saturation higher than in seawater, due to biogenic CO2 and weathering of volcanic silicates. May provide analogue to Precambrian stromatolite environments)

Kempe, S. & J. Kazmierczak (1993)- Satonda crater lake, Indonesia: hydrogeochemistry and biocarbonates. Facies 28, p. 1-32.
(Recent calcareous structures resembling stromatolites in crater lake of small Satonda island, N of Sumbawa)

Kershaw, A.P., D. Penny, S. van der Kaars, G. Anshari & A. Thamotherampillai (2001)- Vegetation and climate in lowland southeast Asia at the Last Glacial Maximum. In: I. Metcalfe et al. (eds.) Faunal and floral migration and evolution in SE Asia-Australasia. Balkema, Lisse, p. 227-236.
(Pollen records from SE Asia suggest that during Lst Glacial Maximum (~18 ka) precipitation was probably lower by ~30-50% than today, and temperature was reduced by as much as 6-7°. Rainforest was replaced by grassland in some areas. Montane forest elements descended to low altitudes. Exposed continental shelves covered largely by rainforest in wetter areas, by grassland and open woodlands in drier areas)

Kershaw, A.P., S. van der Kaars & J.R. Flenley (2011)- The Quaternary history of Far Eastern rainforests. In: M.B. Bush et al. (eds.) Tropical rainforest responses to climatic change, 2nd Ed., Springer-Praxis, Chapter 4, p. 85-123.

Khider, D. (2011)- Paleoceanography of the Indonesian Seas over the past 25,000 years. Ph.D. Thesis University of Southern California, p. 1-233.

Konecky, B., J. Russell & S. Bijaksana (2016)- Glacial aridity in central Indonesia coeval with intensified monsoon circulation. Earth Planetary Sci. Letters 437, p. 15-24.
(Last Glacial Maximum was cool and dry over Indo-Pacific Warm Pool region. Pervasive aridity and reduced rainfall coincided with apparent increase in circulation intensity in IPWP)

Koopmans, B.N. (1972)- Sedimentation in the Kelantan delta (Malaysia). Sedimentary Geology 7, 1, p. 65-84.
(Kelantan River (NE Malay Peninsula) flows into S China Sea through two main channels. Mouth of river gradually shifted W under influence of beach drift generated by NE monsoon)

Korus, J.T. & C.R. Fielding (2015)- Asymmetry in Holocene river deltas: patterns, controls, and stratigraphic effects. Earth-Science Reviews 150, p. 219-242.
(Review of sediment distribution patterns in 27 deltas worldwide, incl. Mahakam)

Krebs, U., W. Park & B. Schneider (2011)- Pliocene aridification of Australia caused by tectonically induced weakening of the Indonesian throughflow. Palaeogeogr. Palaeoclim. Palaeoecology 309, p. 111-117.
(Climate model to test response of climate to E-M-Pliocene tectonic changes, which constricted and uplifted passages between New Guinea and Sulawesi. Associated changes in Indonesian throughflow influenced amount of heat transported from Pacific to Indian Ocean and contributed to Pliocene climate change of Indo-Pacific)

Kuenen, P.H. (1939)- Sediments of the East Indian Archipelago. In: P.D. Trask (ed.) Recent marine sediments: a symposium, AAPG, Tulsa, p. 348-355.

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Kuenen, P.H. (1948)- Het gehalte aan kalk en organische stof van de Indische diepzee-afzettingen. Handelingen 28e Nederlandsch Natuur- Geneeskundig Congres, Utrecht 1946, p. 258-259.
('The lime and organic content of Indies deep sea deposits')

Kuenen, P.H. (1948)- Influence of the earth's rotation on ventilation currents of the Moluccan deep-sea basins. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam 51, 4, p. 417-426.
(online at: www.dwc.knaw.nl/DL/publications/PU00018509.pdf)
(Oxygen content of bottom water suggests currents ventilating Celebes Sea- Banda Sea deep-sea basins deflected by Coriolis force. N of equator the currents are forced to right, S of equator to left)

Kuenen, P.H. (1950)- Marine Geology. John Wiley, New York, p. 1-568.
(online at: https://ia800501.us.archive.org/23/items/marinegeology030411mbp/marinegeology030411mbp.pdf)
(General textbook on marine geology, with many examples from Indonesian waters, incl. Chapter 3- 'The Indonesian deep-sea depressions' (p. 175-209), and discussions of formation of coral reefs, ancient river courses on Sunda Shelf (Fig. 203), etc. ('Pre-plate tectonics' discussions of origins of seas and continents; Kuenen skeptical of Wegener's continental drift theory; JTvG))

Kuhnt, W., A. Holbourn, R. Hall, M. Zuvela & R. Kase (2004)- Neogene history of the Indonesian Throughflow. In: P. Clift et al. (eds.) Continent-ocean interactions within East Asian marginal seas, American Geophys. Union (AGU), Geophys. Monograph Ser. 149, p. 299-318.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.719.3415&rep=rep1&type=pdf)
(Early evolution of Indonesian Gateway characterized by tectonic restriction of deep water pathway between Pacific and Indian Oceans at ~25 Ma. By E Miocene already closed as deep water pathway)

Kusnida, D. (2009)- Occurrence of phillipsite mineral in sub-seafloor of Roo Rise- Indian Ocean: a tectonic erosion synthesis. Indonesian Mining J. 12, 1, p. 23-27.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/573/435)
(Phillipsite at 30-30.3m in core from Indian Ocean seafloor S of W Timor at 3884m water depth. Marks hiatus between Eocene and Late Miocene nannoplankton-rich marls, possibly related to volcanic activity)

Kuswardani, R.T.D. & F. Qiao (2014)- Influence of the Indonesian Throughflow on the upwelling off the east coast of South Java. Chinese Science Bull. 59, 33, p. 4516-4523.
(Wave-tide-circulation model used to simulate upwelling off S coast of Java. Strongest vertical velocity at ~80m depth. Upwelling off W Java has seasonal variability, but steady and strong off E Java. Wind not dominant for upwelling off S part E Java. Indonesian Throughflow probably accounts for ~60% of E Java upwelling)

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(Deposition of suspended sediment in shallow coastal waters colonized by Thallasia-dominated seagrass in Pannikiang Island measured with sediment traps. Amounts of sediment deposition inside seagrass beds significantly higher than in adjacent unvegetated area)

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(online at: https://journals.ametsoc.org/doi/pdf/10.1175/1520-0485%282002%29032%3C1404%3AEOTITO%3E2.0.CO%3B2)
(Circulation modeling to investigate effects of Indonesian Throughflow on circulation and thermal structure of Pacific and Indian Oceans. Blockage of ITF cuts off heat transport from Pacific to Indian Ocean, causing overall warming deepening and shoaling of thermocline in tropical Pacific and cooling and shoaling of thermocline in S Indian Ocean)

Li, D., T.L. Chiang, S.J. Kao, Y.C. Hsin, L.W. Zheng, J.Y. Terence Yang, S.C. Hsu, C.R. Wu & M. Dai (2017)- Circulation and oxygenation of the glacial South China Sea. J. Asian Earth Sci. 138, p. 387-398.
(online at: https://phyoce.es.ntnu.edu.tw/pdf/JAES_Circulation%20and%20oxygenation%20of%20the%20glacial%20South%20China%20Sea.pdf)

Li, Q., B. Li, G. Zhong, B. McGowran, Z. Zhou, J. Wang & P. Wang (2006)- Late Miocene development of the western Pacific warm pool: planktonic foraminifer and oxygen isotopic evidence. Palaeogeogr. Palaeoclim. Palaeoecology 237, p. 465-482.
(Disappearance at ~10 Ma of Globoquadrina dehiscens from W Pacific and S China Sea, increase in warm-water species, decrease in deepwater species and evidence of sea surface warming and deepened local thermocline interpreted as early development of W Pacific warm pool. Late Miocene warm pool became paleobiologically detectable from ~10 Ma, but modern warm pool did not appear until ~4 Ma, in M Pliocene)

Li, Z., X. Shi, M.T. Chen, H. Wang, S. Liu, J. Xu, H. Long, R.A. Troa, R. Zuraida & E. Triarso (2016)- Late Quaternary fingerprints of precession and sea level variation over the past 35 kyr as revealed by sea surface temperature and upwelling records from the Indian Ocean near southernmost Sumatra. Quaternary Int. 425, p. 282-291.
(Paleoclimate reconstructions from core SO184-10043 offshore southernmost Sumatra, 2171m water depth)

Linsley, B.K. (1991)- Carbonate sedimentation in the Sulu Sea linked to the onset of Northern Hemisphere glaciation, 2.4 Ma. In: E.A. Silver at al. (eds.) Proc. Ocean Drilling Program (ODP), Scient. Results, 124, p. 375-378.
(online at: www-odp.tamu.edu/publications/124_SR/VOLUME/CHAPTERS/sr124_28.pdf)
(Sulu Sea ODP Sites 768 and 769 currently above carbonate compensation depth (4800 m), in deep marine silled basin. Pliocene- Pleistocene sediments with common pelagic material, but no pelagic carbonate before 2.4 Ma. Timing of increase in carbonate accumulation constrained by Gauss/Matuyama paleomagnetic reversal and coincides with onset of N Hemisphere glaciation at 2.4 Ma. Not clear if increase in carbonate accumulation at 2.4 Ma is due to productivity changes, preservation changes, or combination of two)

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(online at: https://marine.rutgers.edu/pubs/private/Holocene%20WPWP-ITF_N.Geo2010_w_SOM.pdf)
(Sediment cores from across the Indonesian Throughflow area suggest that from ~10,000 to 7000 years ago, (Holocene Climate Optimum) sea surface T in western W Pacific warm pool ~0.5 °C higher than during pre-industrial times. About 9500 years ago, when South China and Indonesian seas were connected by rising sea level, surface waters in Makassar Strait became relatively fresher)

Linsley, B.K., R.C. Thunell, C. Morgan & D.F. Williams (1985)- Oxygen minimum expansion in the Sulu Sea, western equatorial Pacific, during the last glacial low stand of sea level. Marine Micropaleontology 9, p. 395-418.
(Sulu Sea deep silled, dysaerobic basin, ventilated through single sill at 420m depth to China Sea. Increases in planktonic foraminifera Neogloboquadrina dutertrei and Ng. pachyderma and light d18 O values suggest reduced surface water salinities during last glacial maximum, with expansion of mid-water oxygen minimum layer and increased organic carbon preservation at mid-water depths at this time. Oridorsalis umbonatus dominant benthic foram species between water depths of 2000-4200m. Bolivina robusta found only in oxygen minimum zone at 1700 m and in zone of oxygen depletion in deep part of basin. Below 4000 m, bottom waters maintained some degree of oxygenation during last glacial maximum. Radiolarians 3-8% of fauna at water depths <4000 m, gradually increasing in abundance to >50% below 4500 m)

Liu, J.P., D.J. DeMaster, T.T. Nguyen, Y. Saito, V.L. Nguyen, T.K.O. Ta & X. Li (2017)- Stratigraphic formation of the Mekong River Delta and its recent shoreline changes. In: Sedimentation and survival of the Mekong Delta, Oceanography 30, 3, p. 72-83.

(online at: https://tos.org/oceanography/assets/docs/30-3_liu.pdf)
(Mekong River discharges into S China Sea and formed third largest delta plain in world (~50,000 km2; after Amazon and Ganges-Brahmaputra). Subaerial delta prograded ~220 km SE-ward in last 7500 years, showing 15m thick sigmoidal clinoforms immediately off distributaries. Mekong-derived sediment extends ~300 km along shelf to SW. From 1973- 2005 seaward shoreline growth decreased gradually, due to construction of dams, sand mining, delta subsidence, increasing storms and sea level rise)

Liu, Z., H. Wang, W.S. Hantoro, E. Sathiamurthy, C. Colin, Y. Zhao & J. Li (2012)- Climatic and tectonic controls on chemical weathering in tropical Southeast Asia (Malay Peninsula, Borneo, and Sumatra). Chemical Geology 291, p. 1-12.
(Clay mineralogy and major element geochemistry of 58 surface sediment samples in 27 rivers draining Malay Peninsula, Borneo, and Sumatra. High kaolinite in Malay Peninsula (av. 80%), Sumatra (58-78%), and S Borneo (41-55%), high illite in N Borneo (47-77%), moderate smectite in Sumatra (6-29%). Intensive chemical weathering in all three regions, increasing from N Borneo to S Borneo, and further to Malay Peninsula and Sumatra. Monsoon climate with constant warm temperature and abundant precipitation principal forcing factor on chemical weathering)

Lowemark, L., C.H. Chen, C.A. Huh, T.Q. Lee, Y.P. Ku et al. (2004)- Biogenic reworking of tephra layers in the South China Sea (core MD972142) and the Celebes Sea (core MD012388). Berita Sedimentologi 19, p. 31-41.

Luo, C., G. Lin, M. Chen, R. Xiang, L. Zhang, . Liu, A. Pan, S. Yang & M. Yang (2016)- Characteristics of pollen in surface sediments from the southern South China Sea and its paleoclimatic significance. Palaeogeogr. Palaeoclim. Palaeoecology 461, p. 12-28.
(Pollen-spores from 62 seafloor sediments of southern Sh China Sea dominated by trilete spores (from ferns). Most pollen and spores on Kalimantan Island coast from herbaceous plants and trees, with few trilete spores)

Mann, T., A. Rovere, T. Schoene, A. Klicpera, P. Stocchi, M. Lukman & H. Westphal (2016)- The magnitude of a mid-Holocene sea-level highstand in the Strait of Makassar. Geomorphology 257, p. 155-163.
(Literature suggests two relative sea-level highstands over last 6000 years, with magnitudes >2m, but emergent fossil microatolls on Pulau Panambungan, Spermonde Shelf, indicate relative sea-level highstand not >0.5 m above present at ~5600 yr BP. Highstand followed by rapid sea-level fall to present level at ~4000 cal. yr BP)

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(Simulated total Indonesian Throughflow (-13.4 Sv) is similar to observational estimate (-15.0 Sv) and distributed among three outflow passages (Lombok Strait, Ombai Strait and Timor Passage). Makassar Strait carries ~75% of observed total ITF inflow. Wide and shallow Java and Arafura Seas carry -0.8 Sv of inflow)

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(Indonesian Throughflow measured for 6 years. Mean relative throughflow-transport 5 million m3/s. Maximum net, relative transport to W between Australia and Indonesia is 12 Sv, in August/September. Amplitude and phase of annual signal vary considerably within Indonesian region

Middelburg, J.J., G.J. de Lange & R. Kreulen (1990)- Dolomite formation in anoxic sediments of Kau Bay, Indonesia. Geology 18, 5, p. 399-402.

Middelburg, J.J. (1991)- Organic carbon, sulphur, and iron in Recent semi- euxinic sediments of Kau Bay, Indonesia. Geochimica Cosmochimica Acta 55, 3, p. 815-828.

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(Rivers on Sumatra, Java, Borneo, Sulawesi, Timor and New Guinea relatively high sediment discharge. These six islands only 2% of land area draining into global ocean, but responsible for 20-25% of sediment export)

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(1992 Flores tsunami caused widespread deposition of coarse and well-sorted marine carbonate sand with molluscan shells sand on N and SSW shores of Babi Island)

Mohtadi, M., L. Max, D. Hebbeln, A. Baumgart, N. Kruck & T. Jennerjahn (2007)- Modern environmental conditions recorded in surface sediment samples off W and SW Indonesia: planktonic foraminifera and biogenic compounds analyses. Marine Micropaleontology 65, p. 96-112.
(Study of planktonic foraminifera in surface sediment samples from fore-arc basins in W and SW Indonesian Archipelago. Present-day oceanography and marine productivity reflected in tropical to subtropical and upwelling assemblages of planktonic foraminifera in surface sediments. Opal in surface sediments corresponds to upwelling-driven increased marine productivity)

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(online at: http://onlinelibrary.wiley.com/doi/10.1029/2011PA002132/pdf)
(Shell chemistry of planktic foraminifera in 69 seafloor samples in E Indian Ocean off W and S Indonesia)

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(online at: http://www.stuut.tv/Mohtadi_et_al_2011.pdf)
(Planktonic foraminiferal oxygen isotopes and faunal composition in a sediments offshore S Java show glacial-interglacial variations in Australian-Indonesian winter monsoon in phase with Indian summer monsoon system. Australian-Indonesian summer and winter monsoon variability closely linked to summer insolation and abrupt climate changes in N hemisphere)

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(online at: https://www.nature.com/articles/s41467-017-00855-3.pdf)
(Climate proxies in E Indian Ocean sediment cores off W and S Sumatra and S Java. During Last Glacial Maximum increased thermocline depth and rainfall, indicating stronger-than-today Walker circulation)

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(online at: http://onlinelibrary.wiley.com/doi/10.1029/2008PA001636/epdf)
(Planktonic foraminifera primary production rates in Indian Ocean off S Java highest during SE monsoon-induced coastal upwelling period in July- October, with Globigerina bulloides, Neogloboquadrina pachyderma (d) and Globigerinita glutinata 40% of total fauna. Habitats of 0-30m for G. ruber (mixed layer depth); 60-80m for P. obliquiloculata and 60–90m for N. dutertrei (upper thermocline depth); and 90-150 m for G. menardii (lower thermocline depth))

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Molengraaff, G.A.F. (1921)- Modern Deep Sea Research in the East Indian archipelago. Geographic J. 57, 2, p. 95-121.
(Overview of oceanographic work in Indonesia, deep sea basins bathymetry, Sunda shelf seas with drowned river systems and barrier reefs, etc.)

Molengraaff, G.A.F. (1930)- The recent sediments in the seas of the East Indian Archipelago with a short discussion of those seas in former geological periods. Proc. Fourth Pacific Science Congress, Java 1929, IIA, p. 989-1021.

Morey, S.L., J.F. Shriver & J.J. O'Brien (1999)- The effects of Halmahera on the Indonesian throughflow. J. Geophysical Research 104, C10, p. 23281-23296.
(Modeling of throughflow. Predominantt throughflow pathway North Pacific (NP) water traveling through Celebes Sea, Makassar Strait, Flores Sea, and to Indian Ocean through Timor, Savu, and Lombok Straits Halmahera prevents flow of South Pacific (SP) water into Celebes Sea and diverts some SP water S-ward through Seram and Banda Seas)

Murgese, D.S. & P. De Deckker (2007)- The Late Quaternary evolution of water masses in the eastern Indian Ocean between Australia and Indonesia, based on benthic foraminifera faunal and carbon isotopes analyses. Palaeogeogr. Palaeoclim. Palaeoecology, 247, p. 382-401.
(Paleoceanographic evolution of E Indian Ocean At 60-35 kyr BP (ka) higher productivity than today at Banda Sea surface. Last Glacial Maximum reduction of deep-water circulation in E Indian Ocean, with more active circulation at intermediate depths. At 15-5 ka reduction in productivity over Banda Sea related to increased atmospheric precipitation with low-salinity water cap. From 5 ka- Present: W Australian coast increased influence of oxygen-depleted Indonesian Intermediate Water)

Murgese, D.S. & P. De Deckker, M.I. Spooner & M. Young (2007)- A 35,000 year record of changes in the eastern Indian Ocean offshore Sumatra. Palaeogeogr. Palaeoclim. Palaeoecology, 265, p. 195-213.
(Core in 2034m of water off S Sumatra. Micropaleontological proxies used to reconstruct conditions over last 35,000 years. Marine isotopic stage 3 sharper thermocline than today, shallower and absence of low-salinity 'barrier layer' from high monsoonal rains. Deglaciation marked by change in surface salinity and progressive alteration of thermocline with less productive deep chlorophyll maximum. Monsoonal activity commenced around 15 ky. Holocene marked by increase in river discharge to ocean, pulsed by delivery of organic matter to sea floor. No obvious and persistent upwelling conditions off Sumatra for last 35,000 years)

Murray, S.P. & D. Arief (1988)- Throughflow into the Indian Ocean through the Lombok Strait, January 1985-January 1986. Nature 333, 6172, p. 444-447.
(Current meter observations support existence of large throughflow of elevated temperature/ depressed salinity of water, which has critical role in heat and freshwater balance of Indian Ocean)

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mouthbars. Width-thickness ratios for fluvial distributary channel reservoirs average 50:1, meandering fluvial channel reservoirs have width-thickness ratios typically >100:1, braided river reservoirs 500:1 or higher)

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(Planktonic foraminifera from sites DSDP 292 and ODP 806 in W Pacific Ocean. Site 292 is located at N margin, and site 806 near center of modern West Pacific Warm Pool. Between 8.5-4.4 Ma Site 806 overlain by warm surface water but not Site 292. N-ward expansion of WPWP from 4.4-3.6 Ma and establishment of modern WPWP by 3.6 Ma related to closure of Indonesian and Central American seaways)

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(Advection of relatively fresh Java Sea water through Sunda Strait presently responsible for low-salinity tongue in E Indian Ocean with salinities as low as 32‰. During last glacial period Sunda shelf was exposed and advection via Sunda Strait was cut off. Sediment cores from E tropical Indian Ocean off Sunda Strait show lower T and higher δ18Osw during last glacial)

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(online at: https://journals.ametsoc.org/doi/pdf/10.1175/1520-0485%282004%29034%3C0772%3ASOTITI%3E2.0.CO%3B2)
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(Late Quaternary paleoceanography of Banda Sea based on core at 1805m bsl E of Timor, below pathway of Indonesian Throughflow. Site characterised by high surface T and high precipitation, forming low-salinity boundary layer. Minimal surface T cooling during last glacial maximum. Sea-surface seasonality never >3 °C. Abundance of Neogloboquadrina dutertrei, Neogloboquadrina pachyderma and Globigerinoides quadrilobatus indicates mixed layer (low-salinity boundary layer of Throughflow) thinned during Marine Isotope Stages 3 and 2. This enhanced deep chlorophyll maximum (DCM) layer. NW Monsoon 'switched on' at 15,000 kyr BP. This thickened mixed layer, reducing DCM, and increased SST seasonality in Banda Sea)

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(S Java Current poorly understood boundary current, reversing to SE-ward flow semi-annually around May and November. June-October SE monsoon winds lead to upwelling of cold, salty water)

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(online at: http://aoe.scitec.kobe-u.ac.jp/~mdy/library/papers/Sprintalletal2014NG.pdf)
(Indonesian Throughflow from Pacific to Indian Ocean through series of narrow straits. Strong velocities at depths of ~100 m. Intense vertical mixing within Indonesian seas, resulting in net upwelling of thermocline water, lowering sea surface temperatures by ~0.5 °C. Throughflow slows and shoals during El Nino events)

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(Indonesian Throughflow is only open pathway for interocean exchange between Pacific and Indian Ocean basins at tropical latitudes. ITF transport variability measured from remotely sensed altimeter data, with focus on outflow passages of Lombok, Ombai, and Timor. Strong interannual variability. Increased transport in the upper layer of Lombok Strait and all of Timor Passage likely related to enhanced Pacific trade winds. El Nino-Southern Oscillation variability strongest in Timor Passage)

Sprintall, J., S. Wijffels, R. Molcard & I. Jaya (2010)- Direct evidence of the South Java Current system in Ombai Strait. Dynamics Atmospheres Oceans 50, 2, p. 140-156.
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Srinivasan, M.S. & D.K. Sinha (1998)- Early Pliocene closing of the Indonesian Seaway: evidence from north-east Indian Ocean and tropical Pacific deep sea cores. J. Asian Earth Sci. 16, p. 29-44.
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(In SW Pacific marked differences in biogeographic distribution of the Menardella and Globoconella groups before and after 1.77 Ma, reflecting changes in surface water circulation. Spatial distribution of

Neogloboquadrina pachydermia changed little in last 3.3 My, but frequency increased around 2.58 Ma and again at 0.78 Ma. Distribution pattern of Globigerina bulbides shows intense upweiling at 2.58 Ma)

Steinke, S. M. Prange, C. Feist, J. Groeneveld & M. Mohtadi (2014)- Upwelling variability off southern Indonesia over the past two millennia. Geophysical Research Letters 41, p. 7684-7693.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2014GL061450/pdf)
(Along S coasts of Java, S Sumatra and Lesser Sunda Islands, SE winds from Australia generate intensive coastal upwelling in austral winter (June-September), bringing cooler nutrient-rich waters to surface resulting in enhanced biological productivity. Proxies for upwelling for last 2000 years in deep sea cores show strong upwelling during Little Ice Age and weak during Medieval War Period and Roman Warm Period)

Stumpf, R., S. Kraft, M. Frank, B. Haley, A. Holbourn & W. Kuhnt (2015)- Persistently strong Indonesian Throughflow during marine isotope stage 3: evidence from radiogenic isotopes. Quaternary Science Reviews 112, p. 197-206.
(online at: https://www.geomar.de/fileadmin/personal/fb1/p-oz/mfrank/Stumpf_et_al_2015.pdf)
(Investigation of intensity changes of Indonesian Throughflow and reconstruction of depositional environment at Scott Plateau, W Timor Sea, during Marine Isotope Stage 3 (~60- 30 ka), using radiogenic isotopes)

Sudjono, E.H, D.K. Mihardja & N. Sari Ningsih (2004)- Indikasi fluktuasi arus lintas Indonesia di sekitar Selat Makassar. J. Geologi Kelautan 2, 1, p. 29-35.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/106/96)
('Indication of fluctuations in Indonesian Throughflow in the Makassar Strait')

Sukawati, E., H. Amijaya & E. Yulianto (2009)- Sedimentology of December 2004 and March 2005 tsunami deposit at Busung Bay, Simeulue Island, Sumatra. Proc. 38th Ann. Conv. Exh. Indon. Assoc. Geol. (IAGI), Semarang, 7p.
(Tsunami deposits from Aceh earthquake of 26 December 2004 and Nias earthquake on March 2005. In 2004 tsunami sediments basal rip-up clasts and 6 (9?) fining-upward patterns and 6 coarsening upward patterns; in 2005 tsunami sediment only 1 fining upward pattern. With foraminifera assemblages from inner shelf (2004 and 2005) and middle shelf (2004 only))

Sumner, E.J., M.I. Siti, C. McNeill, P.J. Talling, T.J. Henstock, R.B. Wynn, Y.S. Djajadihardja & H. Permana (2013)- Can turbidites be used to reconstruct a paleoearthquake record for the central Sumatran margin? Geology 41, 7, p. 763-766.
(Sumatra has well-characterized earthquake record spanning past 200 yr, but sediment cores from Sumatran margin reveal few turbidites emplaced in past 100-150 yrs. No evidence of turbidites that correlate with large 2004 and 2005 earthquakes, suggesting not all large earthquakes generate widespread turbidites (Comment by Goldfinger et al. 2014 suggests absence of turbitides possibly because cores not in right locations))

Sun, H., T. Li, C. Liu, F. Chang, R. Sun, Z. Xiong & B. An (2017)- Variations in the western Pacific warm pool across the mid-Pleistocene: evidence from oxygen isotopes and coccoliths in the West Philippine Sea. Palaeogeogr. Palaeoclim. Palaeoecology 483, p. 157-171.
(Planktonic foraminifera O-isotope and Florisphaera profunda abundance data from Core MD06-3050 in W Philippine Sea on margin of W Pacific Warm Pool)

Surachmat, A. (1999)- Salinity of the modern Mahakam Delta, East Kalimantan. Berita Sedimentologi 12, p. 14-16.
(In Mahakam Delta upper delta plain (10-30 km from head-pass) only fresh water. Only last 10km of lower delta plain has brackish water withn salinties from 0-10 kppm. Brackish water in tidal channels with salinity 0-25 kppm. In active distributaries fresh water floats above saline water for 4-6 km)

Susanto, R. D., A. Ffield, A.L. Gordon & T.R. Adi (2012)- Variability of Indonesian throughflow within Makassar Strait, 2004-2009. J. Geophysical Research, Oceans, 117, C9, p.

(Makassar Straits annual mean transport is S-ward at ~13.3 Sv (12.5-14.0 Sv), substantially higher than measurements from 1997 when El Nino suppressed transport (9.2 Sv))

Susanto, R.D. & A.L. Gordon (2005)- Velocity and transport of the Makassar Strait throughflow. J. Geophysical Research 110, C01005, p. 1-10.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.725.7432&rep=rep1&type=pdf
(S-ward transport in Makassar Strait confined mainly to upper 750m, above blocking topographic sill of Makassar Strait. Transport maximum occurs within thermocline (100-300m))

Susanto, R.D., A.L. Gordon & J. Sprintall (2007)- Observations and proxies of the surface layer throughflow in Lombok Strait. J. Geophysical Research112, C03S92, p. 1-11.

Susanto, R.D., A.L. Gordon & Q. Zheng (2001)- Upwelling along the coasts of Java and Sumatra and its relation to ENSO. Geophysical Research Letters 28, 8, p. 1599-1602.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2000GL011844)
(Upwelling along Java-Sumatra Indian Ocean coasts response to regional monsoon winds. Upwelling center with low sea surface T migrates W-ward and toward equator during SE monsoon (June-October), driven by alongshore winds and latitudinal changes in Coriolis parameter. Upwelling terminated due to reversal of winds at onset of NW monsoon. During El Nino episodes upwelling extends in time and space, when ITF carries colder water, shallowing thermocline depth (by 20-60m) and enhancing upwelling strength)

Susanto, R.D., Z. Wei, T.R. Adi, Q. Zheng, G. Fang, B. Fan, A. Supangat, T. Agustiadi, S. Li, M. Trenggono & A. Setiawan (2016)- Oceanography surrounding Krakatau Volcano in the Sunda Strait, Indonesia. Oceanography 29, 2, p. 264-272.
(online at: https://tos.org/oceanography/assets/docs/29-2_susanto.pdf)
(Sunda Strait current velocity strongly affected by seasonal monsoon winds. During boreal winter monsoon NW winds draw waters from Indian Ocean into Java Sea. During the summer monsoon higher T, lower-salinity, and lower-density waters from Java Sea exported to Indian Ocean through Sunda Strait)

Syahrir, M.R., T. Hanjoko, A. Adnan, M. Yasser, M. Efendi, A.A. Budiarsa & I. Suyatna (2018)- The existence of estuarine coral reef at eastern front of Mahakam Delta, East Kalimantan, Indonesia, a first record. AACL Bioflux, Int. J. of the Bioflux Society 11, 2, p. 362-378.
(online at: http://www.bioflux.com.ro/docs/2018.362-378.pdf)
(Coral reef at NE front of Mahakam Delta with 30 genera of hard coral and 11 genera of soft coral)

Szczucinski, W. (2012)- The post-depositional changes of the onshore 2004 tsunami deposits on the Andaman Sea coast of Thailand. Natural Hazards 60, 1, p. 115-133.
(online at: https://link.springer.com/article/10.1007/s11069-011-9956-8)
(2004 Indian Ocean tsunami flooded Andaman Sea coastal zone, leaving few mm to 10's of cm thick deposits over ~1 km-wide inundation zone. After 4 years tsunami deposits preserved at only half of studied sites)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi & Y. Saito (2001)- Sedimentary facies, diatom and foraminifer assemblages in a late Pleistocene-Holocene incised-valley sequence from the Mekong River Delta, Bentre Province, Southern Vietnam: the BT2 core. J. Asian Earth Sci. 20, 1, p. 83-94.
(71m long core in incised vally fill shows post-glacial transgressive -regressive fill cycle. Maximum Holocene marine influence at ~5300 yr BP, with bay/estuary muds with common planktonic diatoms (Coscinodicus, Thalassionema, etc.) and open marine foraminifera (Bolivina, Bulimina, Quinqueloculina, Pararotalia). Regressive succession of prodelta- delta front (4000-3000 yr BP)- delta plain.)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi, Y. Saito & T. Nakamura (2002)- Sediment facies and Late Holocene progradation of the Mekong River Delta in Bentre Province, southern Vietnam: an example of evolution from a tide-dominated to a tide- and wave-dominated delta. Sedimentary Geology 152, p. 313-325.

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi, S. Tanabe & Y. Saito (2002)- Holocene delta evolution and sediment discharge of the Mekong River, southern Vietnam. Quaternary Science Reviews 21, p. 1807-1819.
(Last 3000 yr of Mekong delta evolution characterized by progradation with increasing wave influence, SE-ward sediment dispersal, decreasing progradation rates, beach-ridge formation and delta front face steepening)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi & Y. Saito (2005)- Holocene delta evolution and depositional models of the Mekong River Delta, Southern Vietnam. In: L. Giosan & J.P. Bhattacharya (eds.) River deltas- concepts, models, and examples, Soc. Sedimentary Geology (SEPM) Spec. Publ. 83, p. 453-466.

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi, Y. Saito & T. Nakamura (2002)- Sediment facies and Late Holocene progradation of the Mekong River Delta in Bentre Province, southern Vietnam: an example of evolution from a tide-dominated to a tide- and wave-dominated delta. Sedimentary Geology 152, p. 313-325.
(Mekong Delta is mixed tide and wave energy delta with wide delta plain formed during last 6 ka and is one of largest deltas in world. Changed from tide-dominated to tide-wave-dominated during Late Holocene. Late Pleistocene Paleo-Mekong River incised valley >70 m deep and formed during last glacial period)

Takahashi, K. & H. Okada (2000)- The paleoceanography for the last 30,000 years in the southeastern Indian Ocean by means of calcareous nannofossils. Marine Micropaleontology 40, p. 83-103.
(Latest Quaternary paleoceanography based on calcareous nannofossils from deep-sea cores along N-S transect between 12-25° S off W Australia. Java upwelling system operates above N site and increases counts of small placoliths)

Tamuntuan, G., S. Bijaksana, J. King, J. Russell, U. Fauzi, K. Maryunani, N. Aufa & L.O. Safiuddin (2015)- Variation of magnetic properties in sediments from Lake Towuti, Indonesia, and its paleoclimatic significance. Palaeogeogr. Palaeoclim. Palaeoecology 420, p. 163-172.
(Sediment core from Lake Towuti in E Sulawesi Ophiolite belt with three zones of varying magnetic properties, corresponding to levels of iron oxide dissolution and magnetite precipitation. Magnetically strongest zone weak iron oxide dissolution and intense magnetite precipitation, likely driven by lake conditions during dry conditions in Marine Isotope Stage 2)

Tamura, T., Y. Saito, V.L. Nguyen, T.K.O. Ta, M.D. Bateman, D. Matsumoto & S. Yamashita (2012)- Origin and evolution of interdistributary delta plains; insights from Mekong River delta. Geology 40, 4, p. 303-306.
(Mekong River delta characterized by several shore-perpendicular elongate delta plains, with sequences of beach ridges, reflecting progradation in last 3.5 ka))

Tamura, T., Y. Saito, S. Sieng, B. Ben, M. Kong, I. Sim, S. Choup & F. Akiba (2009)- Initiation of the Mekong River delta at 8 ka: evidence from the sedimentary succession in the Cambodian lowland. Quaternary Science Reviews 28, 3-4, p. 327-344.
(Most modern deltas initiated around 7.5-9 ka, in response to deceleration of Holocene sea-level rise. Initial stage of Mekong River delta recorded in Cambodian lowland sediment cores: (1) aggrading flood plain and tidal-fluvial channels during postglacial sea-level rise (10- 8.4 ka); (2) aggrading to prograding tidal flats and mangrove forests around maximum flooding of sea (~8.0 ka;);(3) prograding fluvial system on delta plain (6.3 ka- Present). Delta progradation initiated as result of sea-level stillstand at around 8-7.5 ka. Thick mangrove peat accumulation from ~7.5- 6.3 ka. Since 6.3 ka fluvial system and delta progradation)

Talley, L.D. & J. Sprintall (2005)- Deep expression of the Indonesian Throughflow: Indonesian intermediate water in the South Equatorial Current. J. Geophysical Research 110, C10009, p. 1-30.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004JC002826)

Tan, K.H. (2008)- Soils in the humid tropics and monsoon region of Indonesia. CRC Press, Boca Raton, p. 1-557.

Tanabe, S., T.K.O. Ta, V.L. Nguyen, M. Tateishi, I. Kobayashi & Y. Saito (2003)- Delta evolution model inferred from the Holocene Mekong Delta, southern Vietnam. In: F.H. Sidi et al. (eds.) Tropical deltas of Southeast Asia, Soc. Sedimentary Geology (SEPM), Spec. Publ. 76, p. 175-188.
(Mekong Delta at SE tip of Indochina Peninsula with large delta plain ranked third largest in world. Present delta classified as tide-dominated/ wave-influenced. Delta evolved from tide-dominated from 6.5- 2.5 ka to tide-wave mixed delta from 2.5 ka- Present. Wave energy will become more pronounced as delta continues to prograde towards shelf margins)

Thomas, R. B. & E.J. Lesleighter (1983)- Sediment transport and deposition in the Cimanuk Delta region, Indonesia. In: Sixth Australian Conf. Coastal and Ocean Engineering, Aust. Inst. Engin., Nat. Comm. Coast. and Ocean Engin., Barton, Australia, p. 139-144
(Many rivers in volcanic areas of Java discharge huge quantities of sediment, forming actively growing deltas like Cimanuk, 170 km E of Jakarta)

Tillinger, D. (2010)- The Indonesian Throughflow of the last 50 years. Ph.D. Thesis Columbia University, Palisades, New York, p. 1-101.
(Indonesian Throughflow transports ~15 Sv (1 Sv = 1 million m3/sec) of relatively cool and low salinity water from tropical Pacific Ocean into Indian Ocean. 50-year time series of transport calculated))

Tillinger, D. (2011)- Physical oceanography of the present day Indonesian Throughflow. In: R. Hall, M.A. Cottam & M.E.J. Wilson (eds.) The SE Asian gateway: history and tectonics of Australia-Asia collision, Geol. Soc. London, Spec. Publ. 355, p. 267-281.
(online at: www.statisticstutors.com/articles/debrat-indonesian-throughflow.pdf)
(Indonesian Throughflow transfers ~15 Sv (1 Sv = Mm3/second) of relatively cool, fresh water from tropical Pacific Ocean to Indian Ocean. Flow freshens the Indian Ocean and transports heat between basins. Etc.)

Tillinger, D. & A. Gordon (2009)- Fifty years of the Indonesian Throughflow. J. of Climate 22, 23, p. 6342-6355.
(online at: http://journals.ametsoc.org/doi/pdf/10.1175/2009JCLI2981.1)

Tomascik, T., A.J. Mah, A. Nontiji & M. Moosa (1997)- The ecology of the Indonesian Seas, Part I. The ecology of Indonesia 7, Periplus Ed., Singapore, p. 1-642.
(Extensive overview of Indonesian seas, with chapters on geology, oceanography and coral reefs)

Tomascik, T., A.J. Mah, A. Nontiji & M. Moosa (1997)- The ecology of the Indonesian Seas, Part II. The ecology of Indonesia Ser. 8, Periplus Ed., Singapore, p. 643-1388.
(Continuation of overview of Indonesian seas, with additional chapters coral reefs, pelagic systems, mangroves and environmental issues)

Tozuka, T., T. Qu & T. Yamagata (2007)- Dramatic impact of the South China Sea on the Indonesian Throughflow. Geophysical Research Letters 34, L12612, p. 1-5.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2007GL030420/epdf)
(S China Sea throughflow may play import ant role in climate variability of Indo-Pacific region)

Tsuchi, R. (1997)- Marine climatic responses to Neogene tectonics of the Pacific Ocean seaways. Tectonophysics 281, p. 113-124.

Umbgrove, J.H.F. (1930)- The amount of maximal lowering of sea level in the Pleistocene. Proc. 4th Pacific Science Congress, Java 1929, IIA, p. 105-113.
(Submarine topography of Sunda Shelf in S China Sea, Java Sea and Straits of Malacca indicate Pleistocene rivers debouched near 100m isobath, suggesting about 100m of maximum sea level lowering)

Unverricht, D., W. Szczucinski, K. Stattegger, R. Jagodzinski, X.T. Le & L.L.W. Kwong (2013)- Modern sedimentation and morphology of the subaqueous Mekong Delta, southern Vietnam. Global and Planetary Change 110, B, p. 223-235.
(Mekong River Delta influenced by tides (meso-tidal system), waves, coastal currents, monsoon-driven river discharge and human impact. Subaqueous part large lateral variability, with two delta fronts, 200 km apart, one at mouth of Bassac distributary,one around Cape Ca Mau in SW. Two different sediment types in delta)

Valsala, V. & S. Maksyutov (2010)- A short surface pathway of the subsurface Indonesian Throughflow water from the Java Coast associated with upwelling, Ekman transport, and subduction. Int. J. Oceanography 2010, 540783, 15p.
(online at: https://www.hindawi.com/journals/ijocean/2010/540783/)
(Circulation modeling suggests Pacific-origin Indonesian Throughflow water can upwell from position below 100m to surface along S Java coast during upwelling season)

Van Aken, H.M., J. Punjanan & S. Saimima (1988)- Physical aspects of the flushing of the East Indonesian basins. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 22, p. 315-339.

Van Andel, T.H., G.R. Heath, T.C. Moore & D.F.R. McGeary (1967)- Late Quaternary history, climate, and oceanography of the Timor Sea northwestern Australia. American J. Science 265, p. 737-758.
(In late Quaternary climate in Timor Sea region more arid than adjacent land is today. Area mainly above sea level during last glaciation and covered by savanna vegetation. Subsequent transgression rapid. Supports Fairbridge contention that during glacial periods W-wind belts with associated rainfall displaced 5-10° N - ward and equatorial pluvial zone was compressed)

Van der Kaars, S. & G.D. van den Bergh (2004)- Anthropogenic changes in the landscape of west Java (Indonesia) during historic times, inferred from a sediment and pollen record from Teluk Banten. J. Quaternary Science 19, 3, p. 229-239.
(Palynological and charcoal analyses of core from coastal area of NW Java provide vegetation history for last few centuries. Effect of Krakatau eruption insignificant compared to human impact on vegetation in Banten)

Van der Meij, S.E.T., R.G. Moolenbeek & B.W. Hoeksema (2009)- Decline of the Jakarta Bay molluscan fauna linked to human impact. Marine Pollution Bull. 59, p. 101-107.
(online at: https://pdfs.semanticscholar.org/91ea/86518ab13496eec4055c5af9d2477c02e2d2.pdf)
(Molluscan fauna of Jakarta Bay deteriorated between 1937 and 2005 due to increased sewage from Jakarta and sediment input from deforested W Java hinterland. Predatory gastropods and mollusc species associated with carbonate substrate vanished from Jakarta Bay, among which many edible species)

Van der Meij, S.E.T., Suharsono & B.W. Hoeksema (2010)- Long-term changes in coral assemblages under natural and anthropogenic stress in Jakarta Bay (1920ï 2005). Marine Pollution Bull. 60, 9, p. 1442-1454.
(Comparison of coral assemblages show about half species recorded in 1920 was found again in 2005. Most prominent declines in near-shore disappearance of Acroporidae, Milleporidae and to lesser extent Poritidae)

Van der Stok, J.P. (1897)- Wind and weather, currents, tides and tidal streams in the East Indian archipelago. Government Printing Office, Batavia, p. 1-209.

Van der Stok, J.P., S.P. Naber, G.F. Tydeman, W.E. Ringer et al. (ed.) (1922)- De zeeen van Nederlandsch Oost Indie. Kon. Nederlands Aardrijkskundig Genootschap, E.J. Brill, Leiden, p. 1-506.
(online at: https://ia600404.us.archive.org/2/items/dezeenvanneder00koni/dezeenvanneder00koni.pdf)
('The seas of Netherlands East Indies'. With chapter on geology and coral reefs by Molengraaff, p. 272-357)

Van Sebille, E., J. Sprintall, F.U. Schwarzkopf, A. Sen Gupta, A. Santoso, M.H. England, A. Biastoch & C.W. Boning (2014)- Pacific-to-Indian Ocean connectivity: Tasman leakage, Indonesian Throughflow, and the role of ENSO. J. Geophysical Research, Oceans, 119, 2, p. 1365-1382.

(Circulation model)

Van Tuijn, J. (1932)- Over een recente daling van den zeespiegel in Nederlandsch Oost-Indie. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2) 49, p. 89-99.
('On a recent drop in sea level in Netherlands East Indies'. Many coastlines in W Indonesia show evidence of recent sea level drop of 5-10m (raised coral reefs, etc.). With map of distribution)

Van Weering, T.C.E., D. Kusnida, S. Tjokrosapoetro, S. Lubis & P. Kridoharto (1989)- Slumping, sliding and the occurrence of acoustic voids in recent and subrecent sediments of the Savu Forearc Basin, Indonesia. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, 4, p. 415-430.
(High resolution seismic and acoustic profiles from Snellius-II Expedition in Savu Basin show widespread recent acoustic voids (transparent 'bright spots') that probably formed from local expulsion of pore-waters, caused by sediment mass movements down uplifted ridge between Sumba and Savu/Roti)

Verschell, M.A., J.C. Kindle & J.J. OčBrien (1995)- Effects of Indo-Pacific throughflow on the upper tropical Pacific and Indian Ocean. J. Geophysical Research, Atmospheres, 100, C9, p. 18409-18420.
(Throughflow oceanography models)

Verstappen, H.Th. (1960)- Some observations on karst development in the Malay Archipelago. J. Tropical Geography 14, p. 1-10.
(On limestone karst development with examples from Java S Mountains, C. Sumatra, Halmahera)

Verstappen, H.Th. (1975)- On palaeoclimates and landform development in Malesia. In: G.J. Bartstra & W.A. Casparie (eds.) Modern Quaternary Research in Southeast Asia, A.A. Balkema, Rotterdam, 1, p. 3-35.
(Climate changes in Quaternary lead to alternating humid and more arid periods, also in tropics. Chemical weathering dominates in interglacial equatorial rainforest conditions, like in Holocene. During glacial periods more pronounced seasonality and physical desintegration of rocks becomes more important. Pleistocene lowered sea level probably did not cause incision of valleys on shelf as rivers have very low gradient. Etc.)

Verstappen, H.Th. (1982)- Quaternary climatic changes and natural environment in SE Asia. Geo Journal 4, 1, p. 45-54.
(Lower rainfall and longer dry season characterised SE Asia during Quaternary Glacials. This had important effect on vegetation and landform development. Low Glacial sea levels thought not to have caused river incision; deposition of coarse-textured materials more characteristic. Incision mainly tied to Interglacial and Holocene humic tropical conditions when vegetation interfered with non-concentrated surface wash)

Verstappen, H.Th. (1998)- The effect of climatic change on southeast Asian geomorphology. J. Quaternary Science 12, 5, p. 413-418.
(Quaternary climatic changes in SE Asia four types of fluctuations: temperature, precipitation, wind patterns and sea-level)

Verstappen, H.Th. (2000)- Outline of the geomorphology of Indonesia. lnt. Inst. Aerospace Survey and Earth Sciences (ITC), Enschede, Publ. 79, p. 1-212.
(Review of geomorphology research in Indonesia, including geologic framework, climatic factors affecting landforms, volcanic landforms, karst terranes, lowlands, coastal geomorphology and coral reefs)

Visser, K., R. Thunell & M.A. Goni (2004)- Glacial-interglacial organic carbon record from the Makassar Strait, Indonesia: implications for regional changes in continental vegetation. Quaternary Science Reviews 23, p. 17-27.
(Climate in W Pacific Warm Pool and other equatorial regions was colder by 3-4°C during glacial periods. Makassar Strait sediment core suggests vegetation on Borneo and surrounding islands did not change from tropical rainforest during last two Late Pleistocene glacial periods, supporting hypothesis that winter monsoon strengthened in glacial periods, allowing Indonesia to maintain high rainfall despite cooler conditions)

Visser, K., R. Thunell & L. Stott (2003)- Magnitude and timing of temperature change in the Indo-Pacific warm pool during deglaciation. Nature 421, 6919, p. 152-155.
(Oxygen isotopes and Mg/Ca ratios of Globigerinoides ruber shells from Makassar strait in Indo-Pacific warm poolyielde estimates of sea surface temperatures and ice volume. Sea surface T increased by 3.5-4.0 °C during last two glacial-interglacial transitions, synchronous with global increase in atmospheric CO2 and Antarctic warming, but T increase ~2000-3000 years before N Hemisphere ice sheets melted. Tropical Pacific region plays important role in driving glacial-interglacial cycles)

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Vranes, K. & A.L. Gordon (2005)- Comparison of Indonesian throughflow transport observations, Makassar Strait to Eastern Indian Ocean. Geophysical Research Letters 32, 10, L10606, p. 1-5.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004GL022158)

Wajsowicz, R.C., A.L. Gordon, A. Ffield & R.D. Susanto (2003)- Estimating transport in Makassar Strait, Deep Sea Research, Part II, 50, p. 2163-2181.

Walsh, J.P. & C.A. Nittrouer (2003)- Contrasting styles of off-shelf sediment accumulation in New Guinea. Marine Geology 196, 3-4, p. 105-125.
(Study of modern 'highstand' off-shelf sedimentation in PNG Gulf of Papua and Sepik margin. Gulf of Papua receives >3x10-8 tons of sediment annually from rivers. Most accumulates on shelf, <5% deposited in Pandora Trough. Sepik margin different: Sepik River discharges ~1x10 -8 tons of sediment annually, and submarine canyon extends to river mouth. 90% of river material regularly produces gravity-driven flows in canyon)

Walsh, J.P. & C.A. Nittrouer (2004)- Mangrove-bank sedimentation in a mesotidal environment with large sediment supply, Gulf of Papua. Marine Geology 208, p. 225-248.
(Extensive mangrove forests are associated with major river systems. Indo-Pacific region numerous large rivers that discharge onto broad continental shelves, with common mangroves along these coastlines. Gulf of Papua >3350 km2 of mangrove forests, majority associated with Fly, Kikori and Purari River deltas. Sediment trapping in W Gulf of Papua mangroves estimated to be 2-14% of total sediment load)

Walsh, J.P., C.A. Nittrouer, C.M. Palinkas, A.S. Ogston, R.W. Sternberg & G.J. Brunskill (2004)- Clinoform mechanics in the Gulf of Papua, New Guinea. Continental Shelf Res. 24, 19, p. 2487-2510.
(Largest islands of Indo-Pacific Archipelago account for 20-25% of global sediment discharge to oceans, >50% of this supplied to wide (>150 km) continental shelves. These conditions create large-scale clinoforms-sigmoidal-shaped deposits on continental shelf. ~20% of sediment supplied to Gulf of Papua accumulates on clinoforms, <5% escapes to adjacent slope, 75% trapped on inner-topset region (<20 m depth) and within flood/ delta plains)

Wang, P. (1999)- Response of Western Pacific marginal seas to glacial cycles: paleoceanographic and sedimentological features. Marine Geology 127, p. 5-39.
(On Late Quaternary in five NE Pacific marginal seas, from Bering Sea to Banda Sea. During glacial cycles reorganization of sea water circulation in basins. Decrease of sea area and sea surface temperature in marginal seas lead enhanced aridity of inland China during glaciation)

Wang, P., L. Wang, Y. Bian & Z. Jian (1995)- Late Quaternary paleoceanography of the South China Sea: surface circulation and carbonate cycles. Marine Geology 127, p. 145-165.

Waworuntu, J.M. (1999)- Water mass transformations and throughflow variability in the Indonesian seas. Ph.D. Thesis University of Miami, Coral Gables, p. 1-98.

Waworuntu, J.M., R.A. Fine, D.B Olson & A.L. Gordon (2000)- Recipe for Banda Sea water. J. Marine Res. 58, p. 547-569.
(Water from the W Pacific flows through Indonesian Seas following different pathways and is modified by various processes to form uniquely isohaline (34.6) Banda Sea Water)

Waworuntu, J.M., S.L. Garzoli & D.B. Olson (2001)- Dynamics of Makassar Strait. J. Marine Res. 59, p. 313-325.
(online at: www.aoml.noaa.gov/phod/docs/garzoli_jmr_2001.pdf)
(Throughflow in Makassar Strait requires at least 3-layer description: upper 200 m water mass characterized by the salinity maximum of North Pacific SubtropicalWater; water in layer 2 is North Pacific Intermediate Water salinity minimum (~300m); bottom layer ~1600m)

Weber, M. (1902)- Siboga expeditie- Introduction et description de lôexpedition. Uitkomsten op zoologisch, botanisch, oceanographisch en geologisch gebied, verzameld in Nederlandsch Oost-Indie 1899-1900, Mon. 1, Brill, Leiden, p. 1-152.
('Introduction and description of the Siboga expedition 1899-1900'. First of many volumes on results of the zoological, botanical, oceanographic and geological studies in E Indonesia waters and islands by members of the Siboga Expedition. Geological results reported by Wichmann 1925)

Webster, P.J.& N.A. Streten (1978)- Late Quaternary ice age climates of tropical Australasia: interpretations and reconstructions. Quaternary Research 10, 3, p. 279-309.

Wei, J., M.T. Li, P. Malanotte-Rizzoli, A.L. Gordon & D.X. Wang (2016)- Opposite variability of Indonesian Throughflow and South China Sea Throughflow in the Sulawesi Sea. J. Physical Oceanography 46, p. 3165-3180.
(online at: https://journals.ametsoc.org/doi/pdf/10.1175/JPO-D-16-0132.1)

Wetzel, A. (1983)- Biogenic structures in modern slope to deep-sea sediments in the Sulu Sea Basin (Philippines). Palaeogeogr. Palaeoclim. Palaeoecology 42, p. 285-304.
(On biogenic structures and depth zonation in 23 cores taken by RV Valdivia from 1000- 5000m water depth, Sulu Sea. Slope- rise sediments down to 3800m almost totally bioturbated, with 8 types of traces: common Helminthopsis, Planolites, Thalassinoides, less common Chondrites, Scolicia, Skolithos, Trichichnus and Zoophycos. Abyssal plain deposits below 4400m less bioturbated (20% or less of sediment burrowed). Increase of trace diversity by small traces, dominated by Muensteria, 'mycellia' and Phycosiphon. Traces typical of many turbidite sequences ('graphoglyptids') absent)

Wetzel, A. (2002)-Modern *Nereites* in the South China Sea- ecological association with redox conditions in the sediment. Palaios 17, p. 507-515.
(Nereites trace fossil ichnofabrics in box cores from >4000m water depths in central S China Sea. Appear to be restricted to oxygenated sediments above redox boundary)

Whitten, T., J. Whitten, C. Goettsch, J. Supriatna & R.A. Mittermeier (1999)- Sundaland. In: R.A. Mittermeier et al. (eds.) Biodiversity hotspots of the world, Cemex, Prado Norte, Mexico, p.

Whitten, T., J. Whitten, C. Goettsch, J. Supriatna & R.A. Mittermeier (1999)- Wallacea. In: R.A. Mittermeier et al. (eds.) Biodiversity hotspots of the world, Cemex, Prado Norte, Mexico, p.

Wijffels, S.E., G. Meyers & J.S. Godfrey (2008)- A 20-yr average of the Indonesian Throughflow: regional currents and the interbasin exchange. J. Physical Oceanography 38, p. 1965-1978.
(online at: https://journals.ametsoc.org/doi/pdf/10.1175/2008JPO3987.1)

Wong, P.P. (2005)- The coastal environment of Southeast Asia. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 177-192.

Woodroffe, C.D. (1993)- Late Quaternary evolution of coastal and lowland riverine plains of Southeast Asia and northern Australia: an overview. Sedimentary Geology 83, p. 163-175.
(Introduction and overview of special issue of Sedimentary Geology)

Woodroffe, C.D. (2000)- Deltaic and estuarine environments and their Late Quaternary dynamics on the Sunda and Sahul shelves. J. Asian Earth Sci. 18, 4, p. 393-413.
(Deltaic and estuarine environments of Sunda shelf receive large volumes of sediment and had diverse and productive vegetation before clearing. Three periods of change: long-term response of deltaic- estuarine plains to postglacial sea-level rise, Holocene patterns of coastal progradation and distributary migration under relatively stable sea level and impact of human modifications)

Woodroffe, C.D. (2005)- Southeast Asian deltas. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 219-236.
(Brief review of delta processes and Irrawaddy, Mekong, Mahakam, Rajang-Barang, etc. deltas of SE Asia)

Woodruff, D.S. (2010)- Biogeography and conservation in Southeast Asia: How 2.7 million years of repeated environmental fluctuations affect todayôs patterns and the future of the remaining refugial-phase biodiversity. Biodiversity and Conservation 19, p. 919-941.
(SE Asia geography today typical of only 2% of last million years; 90% of time land area was 1.5-2.0x larger as mean sea levels were 62m lower, climates were cooler, and extensive forests and savanna covered emerged Sunda plains. Land areas varied as sea levels fluctuated up to 50m with each of ~50 Pleistocene glacial cycles, and forests expanded and contracted with oscillations in land area and seasonality)

Woodson, A.L., E. Leorri, S.J. Culver, D. J. Mallinson, P.R. Parham, R.C. Thunell, V.R. Vijayan & S. Curtis (2017)- Sea-surface temperatures for the last 7200 years from the eastern Sunda Shelf, South China Sea: climatic inferences from planktonic foraminiferal Mg/Ca ratios. Quaternary Science Reviews 165, p. 13-24.
(Temperature record in two cores from Holocene incised valley fills on Sunda Shelf off Sarawak)

Wurster, C.M., M.I. Bird, I.D. Bull, F. Creed, C. Bryant, J.A.J. Dungait & V. Paze (2010)- Forest contraction in north equatorial Southeast Asia during the Last Glacial Period. Proc. National Academy Sciences USA 107, 35, p. 15508-15511.
(online at: www.pnas.org/content/early/2010/07/22/1005507107.full.pdf)
(Distribution of vegetation in SE Asia during Last Glacial Maximum (23-19 ka) still debated. Carbon isotopes of ancient cave guano profiles suggest substantial forest contraction during LGM on peninsular Malaysia and Palawan (and replaced by open savanna conditions), while rainforest was maintained in N Borneo)

Wyrtki, K. (1958)- The water exchange between the Pacific and the Indian Oceans in relation to upwelling processes. Oceanography 16, p. 61-65.

Wyrtki, K. (1961)- Physical oceanography of the southeast Asian waters. Scient. Reports of marine investigations of the South China Sea and the Gulf of Thailand, NAGA Rept. 2, Scripps Inst. Oceanography, University of California Press, San Diego, p. 1-195.
(Classic review of oceanography of Indonesian waters. With maps of seasonal surface currents, salinity, oxygen, temperature, tidal types and amplitudes, etc.)

Wyrtki, K. (1962)- The upwelling in the region between Java and Australia during the south-east monsoon. Australian J. Marine Freshwater Res. 13, p. 217-225.
(online at: www.publish.csiro.au.ezproxy.lib.monash.edu.au/?act=view_file&file_id=MF9620217.pdf)
(During SE monsoon season main upwelling area along S coast of Java and Sumbawa, not along NW Australian shelf. Region characterized by high inorganic phosphate at bottom of euphotic layer and high plankton biomass. Transparency of water in upwelling area is low, indicating high suspended matter)

Wyrtki, K. (1987)- Indonesian throughflow and the associated pressure gradient. J. Geophysical Research 92, p. 12941-12946.

(Flow of water from W Pacific to E Indian Ocean through Indonesian archipelago governed by strong pressure gradient. Average sea level difference 16 cm and most of pressure gradient contained in upper 200m. Annual maximum during SE monsoon in July- August and minimum in January-February)

Xu, Y., L. Wang, X. Yin, X. Ye, D. Li, S. Liu, X. Shi, R..A. Troa, R. Zuraida, E.Triarso & M. Hendrizan (2017)- The influence of the Sunda Strait opening on paleoenvironmental changes in the eastern Indian Ocean. J. Asian Earth Sci. 146, p. 402-411.
(With E Holocene sea level rise warm and low-salinity sea water from Java Sea was transported into E Indian Ocean after opening of Sunda Strait. Core CJ01-185 (1538m water depth) in E Indian Ocean off Sunda Strait sediments derived mainy from Java Island. Sedimentation rate increased from last glacial period to Holocene. Additional terrigenous nutrients from Java Sea induced paleoproductivity with higher TOC and TN concentrations after opening of Sunda Strait)

Yudhicara, A. Ibrahim, V. Asvaliantina, W. Kongko & W. Pranowo (2012)- Sedimentological properties of the 2010 Mentawai tsunami deposit. Bull. Marine Geol. 27, 2, p. 55-65.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/45/46)
(Thickness of 2010 Mentawai tsunami deposits on Sipora and Pagai islands off W Sumatra 1.5-22 cm. Generally composed of fine-coarse sand, in irregular contact with underlying soil. Commonly multiple layers: run up at bottom and back wash at top. Fining upward, parallel lamination and soil clasts observed. Fossils generally rare, but include shallow marine foraminifera and abundant sponge spicules)

Yudhicara, Y. Zaim, Y. Rizal, Aswan, R. Triyono, U. Setiyono & D. Hartanto (2013)- Characteristics of paleotsunami sediments, a case study in Cilacap and Pangandaran coastal areas, Jawa, Indonesia. Indonesian J. Geology 8, 4, p. 163-175.
(online at: http://oaji.net/articles/2014/1150-1408504454.pdf)
(In Pangandaran, S Java, two possible tsunami deposits on top of soil horizons: 5-6 cm layer of coarse sand at top as 2006 tsunami deposit and 5-10 cm sand layer at bottom as paleotsunami. Sands contain (Miocene?) planktonic and shallow marine foraminifera)

Xu, J. (2014)- Change of Indonesian Throughflow outflow in response to East Asian Monsoon and ENSO activities since the Last Glacial. Science China: Earth Sciences 57, p. 791-801.

Xue, Z. (2010)- A source-to-sink study of the Mekong River Delta: hydrology, delta evolution, and sediment transport modeling. Ph.D. Thesis North Carolina State University, p. 1-190.

Xue, Z., J.P. Liu, D. DeMaster, L.V. Nguyen & T.K.O. Ta (2010)- Late Holocene evolution of the Mekong subaqueous delta, Southern Vietnam. Marine Geology 269, p. 46-60.
(High-resolution seismic and coring revealed low gradient, subaqueous paleo-delta system, up to 20m thick, surrounding modern Mekong RiverDelta, formed around 3000 BP)

Zakaria, A.S. (1975)- The geomorphology of Kelantan Delta (Malaysia). Catena 2, p. 337-349.

Zhang, P., R. Zuraida, J. Xu, & C. Yang (2016)- Stable carbon and oxygen isotopes of four planktonic foraminiferal species from core-top sediments of the Indonesian Throughflow region and their significance. Acta Oceanologica Sinica 35, 10, p. 63-76.
(Horizontal and vertical distributions of δ18O and δ13C investigated in Globigerinoides ruber, Gs sacculifer, Pulleniatina obliquiloculata and Neogloboquadrina dutertrei, from 62 core-top samples from Indonesian Throughflow region. In Makassar Strait depleted δ18O and δ13C linked to freshwater input. In Bali Sea depleted δ18O result of freshwater input, while depleted δ13C more likely due to Java-Sumatra upwelling. G. ruber and G. sacculifer calcify within mixed-layer, respectively at 0-50 m and 20-75 m water depth, and P. obliquiloculata and N. dutertrei within upper thermocline at 75-125 m water depth)

Zuvela-Aloise, M. (2005)- Modelling of the Indonesian Throughflow on glacial-interglacial time-scales. Doct. Thesis Christian-Albrechts Universitat Kiel, p. 1-185.

(online at: http://d-nb.info/980884292/34)
(Model used to simulate circulation through the Indonesian Gateways. Lowering of glacial sea level of 120 m not sufficient to severely block flow within Makassar Strait as main passage of Throughflow. Reduction in sill depth and absence of low buoyancy surface waters due to exposure of shelf area led to intensification of surface flow within Makassar Strait)

I.5. SE Asia Carbonates, Coral Reefs

Akbar, M., B. Vissapragada, A.H. Alghamdi, D. Allen, M. Herron et al. (2001)- A snapshot of carbonate reservoir evaluation. Oilfield Review, Schlumberger, Winter 2000/2001, p. 20-41.
(online at: www.slb.com/~/media/Files/resources/oilfield_review/ors00/win00/p20_41.ashx)
(Reservoir evaluation paper with example of M Miocene buildup in Sibolga basin, off NW Sumatra, with unsuccessful 1997 well due to lack of internal seals and late top seal preventing capture of early biogenic gas)

Alcock, A. (1902)- Report on the deep-sea Madreporaria of the Siboga Expedition. Siboga Expeditie Monograph 16a, Brill, Leiden, p. 1-51.
(online at: www.archive.org/details/sibogaexpeditie07sibo)
(Descriptions of 75 species of modern, mainly solitary deep-sea corals from East Indonesia, collected during Siboga Expedition 1899-1900, incl. Caryophyllia, Dendrophyllia, Coenopsammia, etc)

Ashton, P.R. (1981)- Estimating potential reserves in Southeast Asian Neogene reefs. In: Assessment of undiscovered oil and gas, UN ESCAP CCOP Techn. Bull. 10, p. 244-259.

Azmy, K., E. Edinger, J. Lundberg & W. Diegor (2010)- Sea level and paleotemperature records from a mid-Holocene reef on the North coast of Java, Indonesia. Int. J. Earth Sciences (Geol. Rundschau) 99, p. 231-244.
(Mid-Holocene fossil fringing reefs at Point Teluk Awur, near Jepara, N coast of C Java, contains two horizons of Porites lobata microatolls. Age of corals in lower horizon, 80 cm above sea level, ~7000 yr BP, upper horizon at 1.5m, ~6960 ± 60 yr BP, matching transgressive phase of regional sea-level curves)

Bak, R.P.M. & G.D.E. Hovel (1989)- Ecological variables, including physiognomic structural attributes, and classification of Indonesian coral reefs. In: J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 23, p. 95-106.

Bal, A.A., R. Bray & R. Sigit (2012)- Hydrothermally enhanced fractured reservoirs- a new play? Petroleum Geoscience Conf. Exhib. PCGE 2012, Kuala Lumpur 2012, 3p. *(Extended Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/PGCE2012/)
(With exception of Nang Nuan (Gulf of Thailand karst buried hill) and some references to fractured granites in Vietnam, hydrothermally altered hydrocarbon reservoirs largely unreported in SE Asia. Hydrothermal fluids may create higher porosities than expected, not necessarily associated with unconformities)

Bassi, D., J.H. Nebelsick, A. Checconi, J. Hohenegger & Y. Iryu (2009)- Present-day and fossil rhodolith pavements compared: their potential for analysing shallow-water carbonate deposits. Sedimentary Geology 214, p. 74-84.
(Review of rhodoliths (algal nodules consisting predominantly of coralline algae) and sediments formed by these unattached coralline algae, called rhodolith pavements. Includes study of Recent 'rhodolith pavement' off Sesoko-jima (S Japan), at depths of 50-70 m on submarine terrace)

Beauvais, L., M.C. Bernet-Rollande & A. Maurin (1985)- Reinterpretation of Pretertiary classical reefs from Indo-Pacific Jurassic examples. In: C. Gabrie & M. Harmelin (eds.) Proc. Fifth Int. Coral Reef Congress, Tahiti 1985, 6, Misc. Paper (B), p. 581-586.
(Jurassic carbonate mounds in W Thailand (M-U Jurassic, Mae Sot basin), C Sumatra (U Jurassic, Padang-Tembesi River) and Philippines (M Jurassic, Mindoro, U Jurassic Calamian Isl.) not 'reefs' like present day reefs. Corals typically float in lime mud matrix and are mainly digitate or lamellar, to cope with muddy conditions. Calcareous sponges also common. Main rock-building organisms are Bacinellid- Lithocodium-stromatolite assemblage, as encrusters over exotic grains or as single builder. Jurassic corals, sponges etc, have no major rock building potential)

Beauvais, L., H. Fontaine & A. Maurin (1987)- A review of recent data on mud-mounds discoveries in Asia. Oil and Gas Geol. 1987, 12, p. 373-376.
(Many of Mesozoic carbonates in SE Asia are probably microbial mud mounds: Jurassic of Sumatra, Thailand, Burma, Philippines, Sarawak-Kalimantan)

Bellwood, D.R., T.P. Hughes, S.R. Connolly & J. Tanner (2005)- Environmental and geometric constraints on Indo-Pacific coral reef biodiversity. Ecology Letters 8, 6, p. 643-651.
(Discussion of coral species richness patterns in Indo-Australian archipelago coral reef biodiversity 'hotspot')

Bernecker, M. (2005)- Late Triassic reefs from the Northwest and South Tethys: distribution, setting, and biotic composition. Facies 51, p. 442-453.
(Ladinian and Carnian increasing expansion of reefs. Optimum reef diversity and frequency in Norian, as sponge and coral reefs associated with development of carbonate platforms. Not much on SE Asia)

Betzler, C. (1997)- Ecological control on geometries of carbonate platforms: Miocene/Pliocene shallow-water microfaunas and carbonate biofacies from the Queensland Plateau (NE Australia). Facies 37, p. 147-166.
(Miocene and Pliocene of ODP Leg 133 sites record biofacies evolution prior and during the partial drowning of Queensland Plateau carbonate platform. M Miocene depositional geometry is carbonate bank with a well-defined rim and flank. Late Miocene- E Pliocene carbonate ramps, rich in large benthic forams. Reconstruction of Tortonian- Messinian relative sea level curve shows rise punctuated by four falls. Lepidocyclina (N.) rutteni described from Australian faunal province for first time)

Betzler, C., T.C. Brachert & D. Kroon (1995)- Role of climate for partial drowning of the Queensland Plateau carbonate platform (northeastern Australia). Marine Geology 123, p. 11-32.
(Late Miocene- E Pliocene partial drowning of Queensland Plateau carbonate platform off NE Australia. Modern plateau mosaic of pinnacle reefs and larger reefs representing relicts of E-M Miocene buildups. Late Miocene rich in larger forams Lepidocyclina and Cycloclypeus show Pliocene partial drowning of platform preceded by 4 Myr of neritic carbonate deposition without any reefs. Low surface water temperatures (17°-19°C) major factor which suppressed reef growth during Late Miocene- E Pliocene)

Betzler, C. & G.C.H. Chaproniere (1993)- Paleogene and Neogene larger foraminifers from the Queensland Plateau: biostratigraphy and environmental significance. In: J.A. McKenzie, P.J. Davies et al. (eds.) Proc. Ocean Drilling Program (ODP), Scient. Results 133, p. 51-66.
(Leg 133 Queensland Plateau ODP site sites with Eocene (Nummulites, Discocyclina) and Late Oligocene- M Miocene larger foram facies)

Boekschoten, G.J., M. Borel Best, A. Oosterbaan & F.M. Molenkamp (1989)- Past corals and recent reefs in Indonesia. In: Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 23, 2, p. 117-122.
(Snellius-II Expedition collections of Lower Pliocene corals near Salayer and Quaternary reefs on Ambon and Sumba and compared with Pliocene of Nias. Absence of Acropora and Montipora from Quaternary coral faunae (common in Pliocene and modern reefs) may reflect disturbance by Pleistocene sea level fluctuations)

Boekschoten, G.J., M. B. Best and K.S. Putra (2000)- Balinese reefs in historical context. In: K.S.Moosa et al. (eds.) Proc. 9th Int. Coral Reef Symposium, Bali 2000, 1, p. 321-324.
(online at: www.reefbase.org/resource_center/publication/pub_14767.aspx)
(Oldest reefs of Bali developed on top of Neogene pillow lava flows, but barely preserved. Parts of early and late Pleistocene reefs on Bukit peninsula. Holocene post-glacial reefs developed along limestone cliffs and denuded volcanic hardnecks; on lava outflows; and on residual boulder coasts)

Borel Best, M. & G.S. Boekschoten (1989)- Comparative qualitative studies on coral species composition in various reef sites in the eastern Indonesian Archipelago. In: J.H. Choat et al. (eds.) Proc. 6th Int. Coral Reef Symposium, Townsville, 3, p. 197-204.
(350 species of living corals in E Indonesia)

Bosence, D. (2005)- A genetic classification of carbonate platforms based on their basinal and tectonic setting in the Cenozoic. Sedimentary Geology 175, p. 49-72.
(Eight types of carbonate platform recognized, based on basinal and tectonic setting: Fault-Block, Salt Diapir, Subsiding Margin, Offshore Bank, Volcanic Pedestal, Thrust-Top, Delta-Top and Foreland Margin platforms)

Bourrouilh-Le Jan, F.G. (1979)- Les plate-formes carbonatees de haute energie a rhodolithes et la crise climatique du passage Mio-Pliocene dans le domaine Pacifique. Bull. Centre Rech. Exploration-Production Elf-Aquitaine 3, 2, p. 489-495.
('The high energy carbonate platforms with rhodoliths and the climatic crisis of the Mio-Pliocene transition in the Pacific area'. Large M and U Miocene carbonate platforms built on volcanic remains in W and SW Pacific. In rhodolith facies, without corals, probably related to colder climate interval. Warming around Mio-Pliocene boundary allowed resettlement of corals)

Bourrouilh-Le Jan, F.G. & L.C. Hottinger (1988)- Occurrence of rhodolites in the tropical Pacific- a consequence of Mid-Miocene paleo-oceanographic change. Sedimentary Geology 60, p. 355-358.
(Rhodolites over wide areas of tropical Pacific dated as M Miocene. They are preceded in E Miocene and succeeded in Late Miocene by hermatypic coral deposits. Possible causes of facies change: sea-level rise drowning reefs, drop of winter surface water temperature and increase in fertility of surface waters inhibiting compensatory growth of hermatypic corals until sea-level fall restored original conditions of deposition)

Braithwaite, C.J.R. & L.F. Montaggione (2009)- The Great Barrier Reef: a 700 000 year diagenetic history. Sedimentology 56, p. 1591-1622.
(Variety of carbonate cements identified in deep borehoe through Ribbon Reef 5, off NE Australia)

Bromfield K. (2010)- Evolutionary dynamics of Indo-Pacific reef corals throughout the Neogene. Ph.D. Thesis, University of Queensland, p. 1-269. *(Unpublished)*
(Study of 155 species of M Miocene- E Pleistocene reef coral communities from Indonesia (Salayar, S Sulawesi), PNG (New Britain) and Fiji. Coral communities vary with global sea level and time. 41.8% of species in M Miocene in New Britain now extinct. Study supports previously proposed models of E Pliocene turnover event in Scleractinia in Indo-Pacific)

Bromfield, K. & J.M. Pandolfi (2011)- Regional patterns of evolutionary turnover in Neogene coral reefs from the central Indo-West Pacific Ocean. Evolut. Ecology, May 2011, p. 1-17.
(Neogene origination and extinction patterns from Indonesia (Salayar Island; 5.8-1.4 Ma), New Britain and Fiji. Two faunal turnover events(1) increase in Scleractinia diversity during M Miocene (17-14 Ma), coinciding with large-scale sea level fluctuations and M Miocene collision event, possibly facilitated by habitat fragmentation associated with tectonism and sea level fall (2) lowering of diversity throughout Late Miocene-Pliocene (7-3 Ma), followed by pulse of extinction at Pliocene-Pleistocene boundary (~2.6 Ma))

Brouwer, H.A. & G.A.F. Molengraaff (1919)- On reef caps. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 21, 2, p. 816-826.
(Many islands in E Indonesia covered with Plio-Pleistocene fringing reefs, on some islands elevated recently up to 1300m above s.l. Highest reef caps are not necessarily oldest if uplift not uniform)

Brouwer, H.A. (1926)- The origin of coral reefs and reef caps with special reference to mountain building within the Netherlands East Indies. Proc. 2nd Pan-Pacific Science Congress, Australia 1923, p. 1164-1167.

Brownlee, D.N. & M.W. Longman (1981)- Depositional history of a Lower Miocene pinnacle reef, Nido B oilfield, the Philippines. Proc. 4th Int. Coral reef symposium, Manila, 1, p. 619-625.
(Lower Miocene pinnacle reef complexes at Nido fields in S China Sea, NW of Palawan. Relief ~150-200 m)

Bubb, N.N. & W.G. Hatlelid (1976)- Recognition of carbonate build-ups on seismic sections. Proc. Indon. Petroleum Assoc. (IPA) Carbonate Seminar, Jakarta, p. 103-109.

Buxton, M.W.N. & H.M. Pedley (1989)- A standardized model for Tethyan Tertiary carbonate ramps. J. Geol. Soc., London, 146, p. 746-748.

Cabioch, G., L. Montaggioni, N. Thouveny, N. Frank, T. Sato, V. Chazottes, H. Dalamasso, C. Payri, M. Pichon & A.M. Semah (2008)- The chronology and structure of the western New Caledonian barrier reef tracts. Palaeogeogr. Palaeoclim. Palaeoecology 268, p. 91-105.
(Development of New Caledonia barrier reef result of interplay between margin subsidence and sea-level changes. Major W shelf-margin building appears to have started during MIS 11 (400 ka) from shallow-water carbonate platform deposits older than 780 ka. Climatic conditions likely not optimal before late Quaternary, resulting in luxuriant reef expansion only in last 400,000 yrs)

Camoin, G.F., M. Colonna, L.F. Montaggioni, J. Casanova, G. Faure & B.A. Thomassin (1997)- Holocene sea-level changes and reef development in the southwestern Indian Ocean. Coral Reefs 16, p. 247-259.

Camoin, G.F. & P.J. Davies (eds.) (1998)- Reefs and carbonate platforms in the Pacific and Indian Oceans. Int. Assoc. Sedimentologists (IAS), Spec. Publ. 25, Blackwell Science, p. 1-336.

Carnell, A.J.H. & M.E.J. Wilson (2004)- Dolomites in SE Asia- varied origins and implications for hydrocarbon exploration. In: C. J. R Braithwaite et al. (eds.) The geometry and petrogenesis of dolomite hydrocarbon Reservoirs, Geol. Soc. London, Spec. Publ. 235, p. 255-300.
(Diagenetic dolomite present in Paleozoic, Triassic, Paleogene and Neogene carbonates in SE Asia. Pre-Tertiary carbonates form part of economic basement; most not considered to form economic prospects. Manusela Lst of Seram viewed as E-M Jurassic (should be Late Triassic?; JTvG), Tampur Lst of N Sumatra viewed as Eocene (should be Permian?; JTvG))

Carozzi, A.V., M.V. Reyes & V.P. Ocampo (1976)- Microfacies and microfossils of the Miocene reefs carbonates of the Philippines. Philippine Oil Development Company, Manila, Spec. Publ. 1, p. 1-80.
(40 photomicrographs of carbonate microfacies, illustrating a model of Miocene reef sedimentation)

Chalabi, A. (2012)- Remote sensing analysis of Recent carbonate platforms, East of Sabah: potential analogues for Miocene carbonate platforms of the South China Sea. J. Geologi Indonesia 7, 3, p. 123-135.
(online at: http://jgi.bgl.esdm.go.id/index.php/JGI/article/view/29/21)

Chapman, F. & D. Mawson (1906)- On the importance of *Halimeda* as reef forming organisms with a description of the *Halimeda* limestone of the New Hebrides. Quart. J. Geol. Soc., London, 62, p. 702-711.
(Halimeda important component of many reefal limestones (but probably more susceptible to diagenetic decay than Lithothamnion, corals or foraminifera))

Collins, L.B. (2002)- Tertiary foundations and Quaternary evolution of coral reef systems of Australia's North West Shelf. In: M. Keep & S. Moss (eds.) The sedimentary basins of Western Australia 3, Proc. West Australian Basin Symposium, Petroleum Expl. Soc. Australia (PESA), Perth, p. 129-152.
(NW Shelf is modern tropical ramp, underlain by Cretaceous-Tertiary carbonates. Late Tertiary-Quaternary, fringing to isolated coral reefs rise from deep-ramp settings. Scott Reef is isolated reef formed mainly during Last Interglacial (~125 ka). Other reefs that apparently grew to sea level are now 30m below present sea level, indicating significant subsidence in Late Quaternary. Contemporary reefs grew during Holocene in accommodation space provided by subsidence and are up to 35m thick. Rowley Shoals emergent annular reefs rise from depths of 200-400 m. Possible spatial association between reef systems and hydrocarbon seeps)

Collins, L.B. (2010)- Controls on morphology and growth history of coral reefs of Australiaôs western margin. In: W.A. Morgan, A.D. George et al. (eds.) Cenozoic carbonate systems of Australasia, Soc. Sedimentary Geology (SEPM), Spec. Publ. 95, p. 195-218.
(Description of reefs along W margin of Australia. Latitudinal and climatic gradient from macrotidal tropical in N to microtidal-temperate in S)

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(online at: www.rswa.org.au/publications/Journal/94(2)/Collinsetal.pp.239-250.pdf)

(Scott Reef is small carbonate platform located in distal ramp setting on Australia NW Shelf. Rising from depths of 400-700 m. Composed of of two large isolated coral reefs. Present-day reef morphology developed mainly in Holocene. Developed over Late Triassic anticline; area probably above sea level from Permian- Late Jurassic)

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(online at: www-odp.tamu.edu/publications/194_SR/VOLUME/CHAPTERS/005.PDF)
(Facies study of 663m thick Miocene carbonate succession penetrated by two ODP wells on S Marion Plateau)

Crabbe, M.J.C., M.E.J. Wilson & D.J. Smith (2006)- Quaternary corals from reefs in the Wakatobi Marine National Park, SE Sulawesi, Indonesia, show similar growth rates to modern corals from the same area. J. Quaternary Science 21, 8, p. 803-809.
(Study of growth rates of Porites coral from growth bands at Kaledupa island, Tukang Besi, SE Sulawesi. Growth rates of Quaternary species from up to 400m thick uplifted reef terrace slightly lower, but comparable to modern coral (~10-15 mm/yr))

Crevello, P., R. Park, K. Tabri & Premonowati (2006)- Equatorial carbonate depositional systems and reservoir development: modern to Miocene- Oligocene analogs of SE Asia: high resolution exploration and development applications from outcrop to subsurface. AAPG Equatorial Carbonate Field Seminar, 53p.

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(Study of petrophysical properties of Miocene platform carbonates of Marion Plateau, off NE Australia)

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Davies, P.J. & J. Marshall (1985)- *Halimeda* bioherms-low energy reefs, northern Great Barrier Reef. In: M. Harmelin Vivien & B. Salvat (eds.) Proc. 5th Int. Coral Reef Symposium, Tahiti 1985, 5, p. 1-7.
(Holocene bioherms of accumulations of green alga Halimeda cover large areas of outer shelf in 30-50m depths in N Great Barrier Reef, behind shelf edge reefs (see also Marshall and Davies 1988))

Davies, P.J., P.A. Symonds, D.A. Feary & C.J. Pigram (1988)- Facies models in exploration- the carbonate platforms of North-East Australia. Australian Petrol. Explor. Assoc. (APEA) J. 28, 1, p. 123-143.

Davies, P.J., P.A. Symonds, D.A. Feary & C.J. Pigram (1989)- The evolution of the carbonate platforms of Northeast Australia. In: P.D. Crevello et al. (eds.) Controls on carbonate platform and basin development, SEPM Spec. Publ. 44, p. 233-258.
(Carbonate platforms of NE Australia (Great Barrier Reef, Queensland, Marion and Eastern Plateaus S of PNG) contain record complex interactions over past 60 My. Size, shape, and location of carbonate platforms determined by continental rifting. N-ward plate movement controlled distribution of climate facies in Great Barrier Reef sequence. Rising and high sea-level periods favored increased carbonate deposition, falling low sea-levels restricted carbonate deposition. Oceanographic factors affected platform evolution, e. g., inhibition of reef development by high oceanic-phosphate levels during E-M Miocene. Development of foreland basin on N edge of NE Australian region initially caused dramatic expansion of carbonate facies, but ultimately terminated carbonate deposition as result of uplift and inundation by clastic detritus)

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De Neve, G.A. (1981)- Development and origin of the Sangkarang reef archipelago (South Sulawesi, Indonesia). Proc. 10th Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, p. 102-108.
(Sangkarang (=Spermonde) platform large archipelago of reefs off SW Sulawesi, probably on submerged Pleistocene abrasion platform. Subsurface probably Eocene- Oligocene deep marine sediments and Oligo-Miocene shelfal carbonates and volcanics, similar to adjacent S Sulawesi)

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(1883 Krakatoa eruption destroyed marine life temporarily in 100 km radius, by huge amounts of tephra covering sea surface and seafloor. Followed by rapid re-colonization of coral reefs in <50 years , with 66 coral genera)

De Neve, G.A. (1983)- Aspects of geohydrology in coral reef atolls of the Kai and Tanimbar Islands, Southerm Moluccas. Proc. 12th Ann. Conv. Indon. Assoc. Geol. (IAGI), p. 115-126.

De Vantier, L., Suharsono, A. Budiyanto, J. Tuti, P. Imanto & R. Ledesma (1998)- Status of coral communities of Kepulauan Seribu, 1985-1995. In: Proc. Coral Reef Evaluation Workshop, Kepulauan Seribu, Jakarta, September 1995, p. 1-26.

Braga, J.C. (2011)- Fossil coralline algae. In: D. Hopley (ed.) Encyclopedia of modern coral reefs; structure form and process, Springer Verlag, Dordrecht, p. 423-426.
(Depth zonation of coralline algae in Quaternary Pacific reefs three zones: (1) Shallow coral reef (0-5/20m): coralline algae encrusting corals (Hydrolithon, Neogoniolithon); (2) Intermediate fore-reef slope (15/20-50/60m): coralline algae as rhodoliths (Mesophyllum, Lithophyllum); (3) Deep fore-reef slope (50/60- 120m): coralline algae as nodules in carbonate sands or crusts on hard substrates, frequently intergrown with encrusting foraminifera (Lithothamnium, Mesophyllum, Sporolithon, Peyssonnellia))

Done, T. (2011)- Indonesian Reefs. In: D. Hopley (ed.) Encyclopedia of modern coral reefs; structure form and process, Springer Verlag, Dordrecht, p. 594-600.

Dorobek, S.L. (2008)- Tectonic and depositional controls on syn-rift carbonate platform sedimentation. In: J. Lukasik & J.A. Simo (eds.) Controls on carbonate platform and reef development, Soc. Sedimentary Geology (SEPM) Spec. Publ. 89, p. 57-81.
(Review of tectonic controls of carbonate platforms, with examples from Miocene-recent offshore Vietnam)

Dorobek, S.L. (2008)- Carbonate-platform facies in volcanic-arc settings: characteristics and controls on deposition and stratigraphic development. In: A.E. Draut et al. (eds.) Formation and applications of the sedimentary record in arc collision zones, Geol. Soc. America (GSA), Spec. Paper 436, p. 55-90.

Droxler, A.W. & S.J. Jorry (2013)- Deglacial origin of barrier reefs along low-latitude mixed siliciclastic and carbonate continental shelf edges. Annual Review Marine Science 5, p. 165-190.
(Modern coral barrier reefs extend along edges of some low-latitude siliciclastic shelves for 10's-1000's of km (Great Barrier Reef, NE Australia). Onset of rapid sea-level rise during early deglaciations was opportune time for coralgal communities establishment on top of maximum lowstand siliciclastic coastal deposits (beach ridges, lowstand shelf-edge deltas). Most modern barrier reefs relatively thin (~120m), late-Quaternary deposits, dating from mid Brunhes (~400 ky?)- Recent, composed of 4-5 stacked coralgal units, separated by exposure horizons (reflecting 100,000-year glacial-interglacial cycles) and covering older nonreefal, often siliciclastic deposits. Includes examples from Gulf of Papua)

Eberli, G.P., F.S. Anselmetti, A.R. Isern & H. Delius (2010)- Timing of changes in sea-level and currents along Miocene platforms on the Marion Plateau. In: W.A. Morgan, A.D. George et al. (eds.) Cenozoic carbonate systems of Australasia, Soc. Sedimentary Geology (SEPM), Spec. Publ. 95, p. 219-242.

(N and S Marion Platforms off NE Australia studied by ODP 194 wells and seismic. Built by cool, subtropical faunal assemblages and asymmetric geometry. Four megasequences subdivided into 14 sequences. E-M Miocene sequences are prograding and aggrading sequences. From late M Miocene, mounded geometries in basinal area where large drift deposits accumulated. Two most prominent sequences boundaries are drowning unconformities, at 11.1 Ma (N) and ~7 Ma (S Marion Platform). Timing of many Neogene sequence boundaries coincides with boundaries on Queensland Plateau (ODP Leg 133) and along Bahamas Transect (ODP Leg 166), suggesting global synchroneity of Neogene 3rd order sea-level changes)

Edinger, E.N. (1998)- Effects of land-based pollution on Indonesian coral reefs; biodiversity, growth rates, bioerosion, and applications to the fossil record. Ph.D. Thesis, McMaster University. Hamilton, p. 1-297.
(Pollution damage measured in surveys of 8 Java Sea reefs and 8 reefs in Ambon and Sulawesi. Reefs subject to land-based pollution 30-60% less diverse at 3-10m depth. Polluted reefs dominated by massive and submassive corals, and have almost no Acropora corals. Unpolluted reefs dominated by Acropora at 3m and by branching or foliose corals at 10m)

Edinger, E.N., J. Kolasa & M.J. Risk (2000)- Biogeographic variation in coral species diversity on coral reefs in three regions of Indonesia. Diversity and Distribution 6, p. 113-127.
(Coral species diversity along transects from 14 reefs in Ambon S Sulawesi and Java Sea. Sites relatively unaffected by land-based pollution in E Indonesia 20% more diverse than Java Sea. Despite fact that Java Sea was exposed during Pleistocene lowstands, and was recolonized only within last 10 000 years, coral species diversity and assemblage composition on Java Sea reefs similar to open ocean reefs in E Indonesia)

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(Analyses of porosity and permeability in two Miocene carbonate platforms cored by ODP Leg 194, seaward of Great Barrier Reef, at N Marion Platform mostly preserved as limestone) and S Marion Platform (mostly dolomitized))

Ehrenberg, S.N., G.P. Eberli & G. Baechle (2006)- Porosity-permeability relationships in Miocene carbonate platforms and slopes seaward of the Great Barrier Reef, Australia (ODP Leg 194, Marion Plateau). Sedimentology 53, p. 1289-1318.
(Porosity-permeability analyses of Early- Late Miocene platform and deep water carbonates cored on Marion Plateau. Platforms experienced widely varying calcite cementation, dolomitization and dissolution but little evidence of meteoric diagenesis, suggesting subaerial exposure played little role in porosity-permeability evolution. Permeability controlled by grain size and calcite cement content in grainstones and shelter pores and vugs in mud-rich samples. Dolomitization reduces permeability variation. 'Windward' (current-facing) settings overall higher permeability (less muddy depositional facies, greater cementation, and lesser grain dissolution))

Ehrenberg, S.N., J.M. McArthur & M.F. Thirlwall (2006)- Growth, demise and dolomitization of Miocene carbonate platforms on the Marion Plateau, Offshore NE Australia. J. Sedimentary Res. 76, p. 91-116.
(Sr-isotope stratigraphy used to determine timing of depositional events and dolomitization in two Miocene carbonate platforms cored by ODP Leg 194, seaward of Great Barrier Reef. Initial transgression of Marion Plateau volcanic basement E Oligocene (29-31 Ma). Main growth of carbonate platforms in Miocene (23-7 Ma), with five depositional sequences. Both platform-demise events (10.7 and 6.9 Ma) coincide with falls in global sea level combined with decreasing water temperature)

Escher, B.G. (1920)- Koraalriffen en bodembewegingen, met een brief van W.M. Davis. Natuurkundig Tijdschrift Nederlandsch-Indie 79, p. 27-45.
(online at: www.biodiversitylibrary.org/item/123958#page/545/mode/1up)
('Coral reefs and earth movements, with a letter from W.M. Davis'. On relations between patterns of coral reef growth and uplift- subsidence trends. Tested on Indonesia examples)

Escher, B.G. (1920)- Atollen in den Nederlandsch-Oost-Indischen Archipel. De riffen in de groep der Toekang Besi-eilanden. Mededelingen Encyclopedisch Bureau, Batavia, 22, 18p.
('Atolls in the Netherlands East Indies Archipelago: the reefs in the Tukang Besi Group', SE Sulawesi'. Some of modern Tukang Besi reefs true atolls, up to 48km long, some small barrier reefs around islands up to 274m high. Reefs arranged in four NW-SE trending rows, possibly controlled by underlying structure)

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Feary, D.A., P.J. Davies, C.J. Pigram & P.A. Symonds (1991)- Climatic evolution and control on carbonate deposition in northeast Australia. Palaeogeogr. Palaeoclim. Palaeoecology 89, p. 341-361.
(Oxygen isotope data from DSDP holes in SW Pacific used to compile paleotemperature curve for Cenozoic of offshore NE Australia (Great Barrier Reef area): subtropical in Paleo-Eocene and Miocene, temperate in Oligocene, tropical in Pliocene- Recent. Reflects interaction between paleoclimate and N-ward motion of Australian plate)

Feary, D.A., P.A. Symonds, P.J. Davies, G.J. Pigram & R.D. Jarrard (1993)- Geometry of Pleistocene facies on the Great Barrier Reef outer shelf and upper slope seismic stratigraphy of Sites 819, 820 and 821. In: J.A. McKenzie et al. (eds.) Proc. Ocean Drilling Program (ODP), Scient. Results, 133, College Station, p. 327-343.
(online at: www-odp.tamu.edu/publications/133_SR/VOLUME/CHAPTERS/sr133_24.pdf)

Flamand, B., G. Cabioch, C. Payri & B. Pelletier (2008)- Nature and biological composition of the New Caledonian outer barrier reef slopes. Marine Geology 250, p. 157-179.
(Grande Terre island of New Caledonia enclosed by one of longest barrier reefs in world. Forereef slopes from 40- 320m depth with 7 sedimentary facies. From upper reef slopes to ~90m thick coralline algal crusts dominant. Three groups: (C), shallowest, mainly mastophorids (Hydrolithon, Lithoporella, Neogoniolithon) and Lithophyllum); (B) Lithophyllum spp, Mesophyllum and Peyssonnelia from 15-40m; (A) rich in Mesophyllum, Peyssonnelia, Sporolithon on deep reef slopes up to 90m. Below ~90m encrusting foraminifera acervulinids progressively replace coralline algal crusts)

Flugel, E. (1981)- Paleoecology and facies of Upper Triassic reefs in the northern Calcareous Alps. In: D.F. Toomey (ed.) European fossil reef models, Soc. Sedimentary Geology (SEPM) Spec. Publ. 30, p. 291-359.

Flugel, E. (1988)- *Halimeda*: paleontological record and palaeoenvironmental significance. Coral Reefs 6, p. 123-130.
(Halimediform algae in carbonate rocks since U Triassic. Some 30 species described, in four 'genera'. Recent Halimeda in lagoonal and reefal environments. Reinvestigation of Boueina limestones from Norian-Rhaetian lagoonal carbonates of W Thailand indicates important role of alga (up to 60% Boueina marondei n. sp.) in sediment accumulation since Late Triassic)

Flugel, E. (1982)- Evolution of Triassic reefs: current concepts and problems. Facies 6, p. 297-327.
(Norian and Rhaetian reefs known from many parts of the Tethys, incl. Seram, Timor in E Indonesia)

Flugel, E. (2002)- Triassic reef patterns. In: W. Kiessling et al. (eds.) Phanerozoic reef patterns, Soc. Sedimentary Geology (SEPM) Spec. Publ. 72, p. 391-463.
(Includes summaries of known Triassic reefal carbonates in Timor (various localities with Norian reef sponges and corals), Sulawesi, C-E Seram (up to 150m thick sponge-coral-hydrozoan limestone; Wilckens 1937), Papua New Guinea. (Triassic limestone development in Indonesia appears to follow trends across Tethys: first reef optimum in earliest Carnian (sponge-dominated), decrease in LateCarnian, second reef optimum in Late Norian- Rhaetian (sponge-coral and coral dominated); JTvG)

Flugel, E. & B. Senowbari-Daryan (2001)- Triassic reefs of the Tethys. In: G.D. Stanley (ed.) The history and sedimentology of ancient reef systems, Topics in Geobiology, Kluwer, New York, 17, p. 217-249.
(Evolution of Triassic reefs started with ~12 Myr global crisis of metazoan reef ecosystem after Permian-Triassic mass extinction), followed by recovery during M Triassic. Reef systems differentiated during U Triassic but were severely affected by global crisis at Triassic-Jurassic boundary)

Friedman, G.M. (1983)- Reefs and porosity: examples from the Indonesian Archipelago. Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) 6, p. 35-40.
(Most porosity in Tertiary reefal carbonates in Indonesia involves post-depositional diagenetic changes)

Friedman, G.M. (1988)- Case histories of coexisting reefs and terrigenous sediments: the Gulf of Eilat (Red Sea), Java Sea, and Neogene basin of the Negev, Israel. In: L.J. Royle & H.H. Roberts (eds.) Carbonate clastic transitions, Elsevier Developments in Sedimentology 42, p. 77-97.

Fulthorpe, C.S. & S.O. Schlanger (1989)- Paleo-oceanographic and tectonic settings of Early Miocene reefs and associated carbonates of offshore Southeast Asia. American Assoc. Petrol. Geol. (AAPG) Bull. 73, 6, p. 729-756.
(Late Oligocene- early M Miocene widespread carbonates/reefs in SE Asia, related to rising eustatic sea level and expansion of coral-algal facies belt N to Japan and S to New Zealand. Examples mainly from Philippines)

Gallagher, S.J., M.W. Wallace, P.W. Hoiles & J.M. Southwood (2014)- Seismic and stratigraphic evidence for reef expansion and onset of aridity on the North West Shelf of Australia during the Pleistocene. Marine Petroleum Geol. 57, p. 470-481.
(Previously unknown series of drowned fossil reefs in NW Australia shelf described. Reefs formed around 0.5 Ma with oldest ooids in Indian Ocean. Reef expansion partly due to increased Leeuwin Current intensity. Tropical facies expanded with onset of aridification of Australia after 0.6 Ma)

Gerth, H. (1925)- Die Bedeutung der Tertiaeren Riffkorallenfauna des malaysischen Archipels fur die Entwicklung der lebenden Rifffauna im Indopazifischen und Atlantischen Gebiet. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie 8 (Verbeek volume), p. 173-196.
('The significance of the Tertiary reef coral fauna of the Malay Archipelago (=Indonesia) for the development of the living reef fauna in the Indo-Pacific and Atlantic area'. On global distributions of Paleogene- Recent reef corals)

Gerth, H. (1930)- The evolution of reef corals during the Cenozoic period. Proc. 4th Pacific Science Congress, Java 1929, 2A, p. 333-350.
(Modern reef corals two distinct provinces, Indo-Pacific and Atlantic, with higher diversity in Indo-Pacific. Known genera, more than on modern reefs. In Paleogene-Miocene reef corals more widely distributed (up to ~50°N) than today (~32°N))

Goldberg, W.M. (2013)- The biology of reefs and reef organisms. The University of Chicago Press, p. 1-401.
(Modern textbook on Recent carbonate reefs and their organism. Modern reefs clear, warm, low-nutrient waters and are not found far outside 30° from Equator. With review of reef-building organism through time since Precambrian)

Greenlee, S.M. & P.J. Lehmann (1993)- Stratigraphic framework of productive carbonate buildups. In: R.G. Loucks et al. (eds.) Carbonate sequence stratigraphy: recent developments and applications, AAPG Mem. 57, p. 43-62.

Gutteridge, P., J. Garland, B. Vincent & S. Kettle (2011)- Southeast Asian carbonate systems and reservoir development: an up-to-date synthesis. Cambridge Carbonates Ltd., p. 1-600. *(Unpublished report*
(Selected parts online at: www.cambridgecarbonates.com/assets/se-asian-carbonate-systems-and-reservoir-development-report---sample.pdf)

(Major review of existing and future hydrocarbon potential of Tertiary carbonate systems of SE Asia, with chapters on N and S Sumatra, Java, offshore Vietnam/ S China, Sarawak/ Philippines/ Natuna Sea, E Kalimantan, S Sulawesi/ S Makassar Basin, E Sulawesi, W Papua, Papua New Guinea)

Halfar, J. & M. Mutti (2005)- Global dominance of coralline red-algal facies: a response to Miocene oceanographic events. Geology 33. 6, p. 481-484.
(Global rhodalgal facies peak abundances in Burdigalian-E Tortonian (16-11 Ma). Dominance of red algae over coral reefs triggered by Burdigalian global increase in productivity (higher C- isotope values). Rhodalgal lithofacies expanded further in M Miocene when strengthened thermal gradients associated with establishment of E Antarctic Ice Sheet led to enhanced upwelling, while increased weathering rates introduced land-derived nutrients into oceans. Cooler temperatures following E-M Miocene climatic optimum contributed to sustain dominance of red algae)

Hallock, P. & L. Pomar (2008)- Cenozoic photic reef and carbonate ramp habitats: a new look using paleoceanographic evidence. Proc. 11th Int. Coral Reef Symp., Fort Lauderdale 2008, 5p.

Hallock, P. & L. Pomar (2012)- Cenozoic evolution of carbonate shelf and ramp habitats: insights from paleoceanography. AAPG Ann. Conv. Exhib., Long Beach 2012, Search and Discovery Art. 50663, p. 1-42. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2012/50663hallock/ndx_hallock.pdf)
(On relationships between carbonate deposition and Greenhouse vs Icehouse conditions. Large Benthic Forams assemblages most diverse when deeper waters were warmest, with high extinction rates during cooling (increase of surface to thermocline gradients). Aragonite production by corals more widespread during ice-house conditions)

Hantoro, W.S. (1994)- Batugamping terumbu koral Kwarter terangkat di Timor. Proc. 23rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 1, p. 192-207.
('Uplifted Quaternary coral reef limestones of Timor')

Hantoro, W.S., N. Nganro, S. Shofiyah, I. Narulita & J. Sofjan (1997)- Recent climate variation signals from corals in Timor, Indonesia. Quaternary Int. 37, p. 81-87.

Heikoop, J.M., C.J. Tsujita, M.J. Risk & T. Tomascik (1996)- Corals as proxy recorders of volcanic activity; evidence from Banda Api, Indonesia. Palaios 11, p. 286-292.

Hillis-Colinvaux, L. (1980)- Ecology and taxonomy of *Halimeda*: primary producer of coral reefs. Advances in Marine Biology, Academic Press, 17, p. 1-327.
(online at: https://ia801401.us.archive.org/24/items/advancesinmarine80hill/advancesinmarine80hill.pdf)
(Halimeda algae important contributor to tropical reefal limestones since Cretaceous (Jurassic if Boueina included in Halimeda group))

Hoeksema, B.W. (1992)- The position of northern New Guinea in the center of marine benthic diversity: a reef coral perspective. Proc.7th Int. Coral Reef Symp., Guam 1992, 2, p. 710-717.

Hoeksema, B.W. & K.S. Putra (2000)- The reef coral fauna of Bali in the center of marine diversity. In: M.K. Moosa et al. (eds.) Proc. 9th Int. Coral Reef Symp., Bali 2000, 1, p. 173-178.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.612.2947&rep=rep1&type=pdf)
(Bali coral reefs richest in Tulamben- Amed area (E Bali; mainly volcanic sand with limestone outcrops). Islands Nusa Lembongan and Nusa Penida (Lombo Straits, in SE; uplifted limestone) with special fauna elements due to cold upwelling and strong currents. At Sanur and Nusa Dua species previously known only from Pacific. Coral fauna of Bali resembles most fauna of species-rich E Indonesian areas)

Hopley, D. & Suharsono (2000)- The status of coral reefs in Eastern Indonesia. GCRMN Global Coral reef Monitoring Network, Australian Inst. Marine Science, p. 1-111.

Huang, D., W.Y. Licuanan, B.W. Hoeksema, C.A. Chen, P.O. Ang, H. Huang, D.J.W. Lane, S.T. Vo, Z. Waheed, Y. Affendi, T. Yeemin & L.M. Chou (2015)- Extraordinary diversity of reef corals in the South China Sea. Marine Biodiversity 45, 2, p. 157-168.
(Reefs across S China Sea with 571 known species of reef corals)

Iryu, Y. (1997)- Pleistocene fore-reef rhodoliths from the Ryukyu Islands, southwestern Japan. In: H.A. Lessios and I.G. Macintyre (eds.) Proc. 8th Int. Coral Reef Symposium, Panama, 1, p. 749-754.
(Well-rounded rhodoliths 1-8 cm consist of multiple species of nongeliculatecoralline algae and encrusting foraminifer Acervulina inhaerens, together forming concentric internal structure. Thought to have formed in deep fore reef to shelf, at 50-150m depth. Often associated with Cycloclypeus- Operculina foram assemblage)

Iryu, Y., S. Inagaki, Y. Suzuki & K. Yamamoto (2010)- Late Oligocene to Miocene reef formation on Kita-daito-jima, northern Philippine Sea. In: M. Mutti et al. (eds.) Carbonate systems during the Oligocene-Miocene climatic transition, Int. Assoc. Sedimentologists, Spec. Publ. 42, p. 245-256.
(Late Oligocene- Late Miocene carbonate in 433m deep borehole on Kita-daito-jima)

Iryu, Y. & S. Matsuda (1988)- Depth distribution. abundance and species assemblages of nonarticulated coralline algae in the Ryukyu Islands, southwestern Japan. In: J.H. Choat et al. (eds.) Proc. 6th Int. Coral Reef Symposium, Townsville 1988, 3, p. 101-106.
(Distribution of 8 non-articulated coralline algal species in upper 30m of slope of patch reef off Yonehara, Ishigaki-jima: Porolithon onkodes and Lithophyllum insipidum most abundant at depth of 1m, but absent below 20m. Spongites sp. A most common at 15m depth. Neogoniolithon conicum distributed throughout)

Iryu, Y., T. Nakamori, S. Matsuda & O. Abe (1995)- Distribution of marine organisms and its geological significance in the modern reef complex of the Ryukyu Islands. Sedimentary Geology 99, p. 243-258.
(Compositions of coral and coralline algal assemblages change with increasing depth. Hermatypic corals common down to 50m. Coralline algae Hydrolithon onkodes limited to upper 10m. Algal nodules with encrusting foram Acervulina inhaerens (rhodoliths) most abundant constituent on island shelf, commonly with Cycloclypeus carpenteri (50-150m). In Ryukus negligible Halimeda; probably two types of shelves in tropical-subtropical regions: nutrient-rich Halimeda-dominant and nutrient-poor rhodolith-dominant)

Iryu, Y., T. Nakamori & T. Yamada (1998)- Pleistocene reef complex deposits in the Central Ryukus, south-western Japan. In: G.F. Camoin & P.J. Davies (eds.) Reefs and carbonate platforms in the Pacific and Indian Oceans, Int. Assoc. Sedimentologists (IAS), Spec. Publ. 25, p. 197-213.
(Pleistocene carbonates of Ryuku Group with extensive rhodoliths in distal parts of reef complex. Four facies: (1) coral (reef- reef slope; 0-50m), (2) rhodolith (insular shelf 50-150m), (3) Cycloclypeus-Operculina (associated with rhodoliths; 50-150m) and (4) poorly sorted detrital limestones (insular shelf, >50m))

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(Marion Plateau off NE Australia has several shallow marine carbonate platforms, most of which drowned and now in >400 m of water. Oldest drowned platform of E-M Miocene age with initial shallow-marine phreatic phase of cementation, followed by meteoric diagenesis, followed by dolomitization and/or a deep marine cementation. Demise of platform caused by exposure for ~7-10 My sea level drop in M-L Miocene (N10-N17))

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Posamentier, H.W. & S.L. Bachtel (2010)- Seismic geomorphology of a Tertiary-aged isolated carbonate platform system, Browse Basin, Northwest Shelf of Australia: the spatial and temporal evolution of carbonate platform environments- the Lower Section-Part I. In: L.J. Wood et al. (eds.) Seismic imaging of depositional and geomorphic systems, Gulf Coast Sect. SEPM, Ann. Perkins Research Conf. 30, Houston, p. 113-114.

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('Quaternary reefal limestone facies in the Wera and surounding areas, Bima, Sumbawa')

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('Quaternary reefal limestone facies in the Kupang area, Timor')

Premonowati (2010)- Metode pendiskripsian batugamping untuk hydrocarbon reservoar characterization dalam pemodelan geologi. Proc. 39th Ann. Conv. Indon. Assoc. Geol. (IAGI), Lombok, PIT-IAGI-2010-314, 11p.
(General paper discussing limestone description characteristics for reservoir characterization)

Pulunggono, A. (1976)- Tertiary carbonates distribution and oil potential in Indonesia. Proc. Carbonate Seminar Jakarta 1976, Indon. Petroleum Assoc. (IPA), Spec. Vol., p. 6-13.

Purdy, E.G. & D. Waltham (1999)- Reservoir implications of modern karst topography. American Assoc. Petrol. Geol. (AAPG) Bull. 83, 11, p. 1774-1794.
(Tropical karst landscapes exhibit mainly positive relief features, temperate karst areas more negative relief features (i.e., sink holes, dolines, etc.), but not observed in subsurface on seismic sections. Topographic profiles over karst relief features of China, Java (Gunung Sewu) used to construct synthetic seismic sections)

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(Coralline algae from Heron Island lagoon and shallow reef margin/slope, incl. Lithophyllum spp., Hydrolithon spp., Neogoniolithon, Spongites, Lithothamnion, Mastophora, etc. Hydrolithon onkodes abundant on reef flat towards rim)

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(In E Java Sea mutually exclusive occurrences of coral reefs and Halimeda bioherms: coral reefs in depths <15m, extensive areas of 20-50m thick Halimeda bioherms between 20-100m. Unusual success of Halimeda at expense of reef-building corals appears related to nutrient overloading as modulated by monsoon cycle. Strong E-to-W surface flow during E monsoon induces upwelling along western platform margins. Deformation of shallow thermocline where nutrients concentrate (50-100m) brings this deeper Pacific throughflow water to platform margins and top)

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(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/477/pdf)
(Limestone at Ujung Genteng, SW Java, with three Acropora coral associations, tied to 0-13m paleobathymetry. (Age?))

Saqab, M.M. & J. Bourget (2015)- Controls on the distribution and growth of isolated carbonate build-ups in the Timor Sea (NW Australia) during the Quaternary. Marine Petroleum Geol. 62, p. 123-143.
(Quaternary isolated carbonate build-ups common on NW Australia shelf/ Bonaparte Basin: 1-30 km wide, in clusters of ~150 build-ups, 2-85 km from edge of 650 km-wide continental shelf. Mainly 'Halimeda bioherms'.

Distribution of buildups impacted by fault activity, starting in latest Miocene- E Pliocene (initial collision of Australian Plate with Banda Arc, increasing and peaking in E Pleistocene), causing flexural reactivation of structural highs and lows along shelf-margin. Seismic evidence of moat channels and drift deposits suggest contour current activity intensified in late E Pleistocene (~1 Ma). Despite good conditions, buildups did not form until M Pleistocene (~0.58- 0.8 Ma), corresponding to onset of major sea level fluctuations)

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(Atlas of photomicrographs of Cambrian- Pliocene carbonate thin sections, mainly from Mediterranean region)

Scaps, P. & F. Runtukahu (2008)- Assessment of the coral reefs of the Luwuk Peninsula, Central Sulawesi, Indonesia. Bull. Soc. Zoologique France 133, p. 341-355.

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(Three stages in Late Paleocene- E Eocene Tethys carbonate platforms: (1) late Paleocene: coralgal-dominated at low-mid paleolatitudes;(2) latest Paleocene: coralgal reefs dominant at middle paleolatitudes and larger foraminifera-dominated (Miscellanea, Ranikothalia, Assilina) at low paleolatitudes; (3) E Eocene larger foraminifera-dominated (Alveolina, Orbitolites, Nummulites) platforms at low-middle paleolatitudes. Onset of larger foraminifera-dominated platform correlates with Paleocene/Eocene Thermal Maximum. Decline of coralgal reefs in low latitudes related to warming, with sea-surface temperatures in tropics beyond maximum temperature range of corals)

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(Larger-foraminifera turnover (LFT) at Paleocene-Eocene transition involves rapid increase in species and shell size. LFT coincides with Paleocene-Eocene Thermal Maximum (PETM). Because of vulnerability of corals to high surface-water temperatures, global warming may have favored larger foraminifera at expense of corals as main carbonate-producing component on carbonate platforms at lower latitudes)

Scrutton, M.E. (1976)- Aspects of carbonate sedimentation in Indonesia. Proc. 5th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 179-193.

Scrutton, M.E. (1978)- Modern reefs in the West Java Sea. Proc. IPA Carbonate Seminar, Jakarta 1976, Indon. Petroleum Assoc., Special Vol., p. 14-41.
(Overview of reefs and bottom sediments composition of Pulau Seribu, Java Sea, NW of Jakarta)

Scrutton, M. (1979)- Modern reefs in the West Java Sea. SEAPEX Proc. 4, Singapore, p. 22-40.
(Study of carbonate sediment composition of Pulau Seribu group of coral reefs, Java Sea)

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('On the origin of the coral reefs in the Java Sea and Brandewijns Bay (near Padang, W Sumatra) and on new coral growth near Krakatoa'. On initiation of new coral growth in Bay of Jakarta (away from muddy bottoms and usually first by solitary corals Madrepora, Porites, etc., followed by massive corals Astraea, etc.) and growth of modern reefs. Same as Sluiter (1890) below)

Sluiter, C.P. (1890)- Einiges uber die Entstehung der Korallenriffe in der Java Zee und Branntweinsbai, und uber neue Korallenbildung bei Krakatau. Natuurkundig Tijdschrift Nederl. Oost-Indie 49, 2, p. 360-380.
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('On the origin of the coral reefs in the Java Sea and Brandewijns Bay (near Padang, W Sumatra) and on new coral growth near Krakatoa')

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(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/386/247)

Spencer, T. & M.D. Spalding (2005)- Coral reefs of Southeast Asia: controls, patterns and human impacts. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 402-427.
(Indonesia with its 17,500 islands contains 32% of world's shallow coral reefs)

Starger, C.J., P.H. Barber, Ambariyanto & A.C. Baker (2010)- The recovery of coral genetic diversity in the Sunda Strait following the 1883 eruption of Krakatau. Coral Reefs 29, 3, p. 547-565.
(Genetic diversity has largely recovered on reefs decimated by eruption of Krakatau in 1883. Recolonization occurred mainly from Pulau Seribu, but also larval input from other regions. Recovery of genetic diversity in coral reef animals can occur on order of decades and centuries rather than millennia)

Sun, S.Q. & M. Esteban (1994)- Paleoclimatic controls on sedimentation, diagenesis and reservoir quality: lessons from Miocene carbonates. American Assoc. Petrol. Geol. (AAPG) Bull. 74, 4, p. 519-543.
(Reservoir quality of Miocene carbonates primarily controlled by prevailing paleoclimate. Two end members: (1) humid, oceanic tropical-subtropical settings (e.g. Miocene of SE Asia). Warming trend and rising sea level allowed thick coral reefs and skeletal banks to develop. Typically several 3rd-order cycles, separated by discontinuities in platform growth with subaerial exposure, with porosity development associated with meteoric leaching and karstification. Basal transgressive carbonates mostly tight; (2) arid, land-locked temperate-subtropical settingswith elevated salinities and relatively low temperature restricting growth of buildups. Mainly thin, narrow fringing coral reefs with small lagoons in rhodalgal ramps, with minimal meteoric dissolution during subaerial exposure. Evaporitic lagoons cause of pervasive dolomitization, leaching and generation of moldic, vuggy, and intercrystalline porosity. Often with anhydrite cement)

Teichert, C. & R.W. Fairbridge (1948)- Some coral reefs of the Sahul Shelf. Geographical Review 38, 2, p. 222-249.

Ting, K.K., B.J. Pierson & O.S. Al-Jaaidi (2012)- Application of stable isotope analysis from Central Luconia, Sarawak: insights into reservoir development and diagenesis. Petrol. Geosc. Conf. Exh. (PGCE 2012), Kuala Lumpur, Warta Geologi 38, 2, p. 176-177.
(Extended Abstract. Mega-Platform 1.2-km- thick Miocene carbonate platform in N part of Luconia province. Study of isotopic composition of diagenetic cement. Meteoric calcite cement relatively low oxygen isotopic ratios due to addition of lighter meteoric-derived 16O. Carbonate precipitated directly from seawater exhibits 87Sr/86Sr ratio of sea water at time of precipitation. Later diagenetic carbonates incorporate 87Sr released during dissolution and recrystallization, inheriting 87Sr/86Sr ratios of formation waters from which they crystallised, typically with Sr ratios greater than contemporaneous seawater)

Tomascik, T., A.J. Mah, A. Nontiji & M. Moosa (1997)- Geological history of reefs. In: The ecology of the Indonesian Seas, Part I, Chapter 5, The ecology of Indonesia 7, Periplus Ed., Singapore, p. 145-206.

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Tomascik, T., R. van Woesik & A.J. Mah (1996)- Rapid colonisation of a recent lava flow following a volcanic eruption, Banda Islands, Indonesia. Coral Reefs 15, p. 169-175.
(Five years after the 1988 eruption of Gunung Api volcano, Banda Islands, lava flows supported diverse coral community (124 species) with high coral cover and with some colonies measuring over 90 cm in diameter)

Tsuji, Y. (1993)- Tide influenced high energy environments and rhodolith-associated carbonate deposition on the outer shelf and slope off the Miyako Islands, southern Ryukyu Island Arc, Japan. Marine Geology 113, p. 255-271.

Umbgrove, J.H.F. (1928)- Een eeuw theorieen over het ontstaan van koraalriffen. Natuurkundig Tijdschrift Nederlandsch-Indie 88, p. 141-183.
('A century of theories on the origin of coral reefs')

Umbgrove, J.H.F. (1928)- De koraalriffen in de Baai van Batavia. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 7, p. 1-66.
('The coral reefs in the Bay of Jakarta'. 63 recent species. Reef islands started on muddy bottom, sank into substrate after growth)

Umbgrove, J.H.F. (1929)- De koraalriffen der Duizend Eilanden. Dienst Mijnbouw Nederlandsch-Indie, Wetenschappelijke Mededeelingen 12, p. 3-47.
(‘The coral reefs of the Thousand Island's (Pulau Seribu, W Java Sea))

Umbgrove, J.H.F. (1930)- The end of Sluiterôs coral reef at Krakatoa. Leidsche Geol. Mededelingen 3, p. 261-264.
(online at: www.repository.naturalis.nl/document/549489)
(Rapid re-colonization of Krakatoa remnants (NW Rakata) by corals (mainly branching types) after 1883 eruption, as observed by Sluiter (1890). Forty years later covered by pumice deposits eroded from exposed Rakata walls)

Umbgrove, J.H.F. (1930)- De koraalriffen van den Spermonde Archipel (Zuid-Celebes). Leidsche Geol. Mededelingen 3, 5, p. 227-247.
(online at: http://www.repository.naturalis.nl/document/549271)
(‘The coral reefs of the Spermonde Archipelago, S Sulawesi’. Early survey of modern reefs off SW tip of Sulawesi. Adjacent coastal plain is bordered by Maros Mts, composed of Late Eocene and Miocene limestones)

Umbgrove, J.H.F. (1930)- The influence of the monsoons on the geomorphology of coral islands. Proc. 4th Pacific Science Congress, Java 1929, IIA, p. 49-64.

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(‘The coral reefs of Port Emma, West Sumatra’. On modern coral reefs in bay near Padang)

Umbgrove, J.H.F. (1939)- De atollen en barriere-riffen der Togian eilanden. Leidsche Geol. Mededelingen 11, 1, p. 139-187.
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(‘The atolls and barrier reefs of the Togian Islands’. Study of modern atolls and reefs in Tomini Gulf, N Sulawesi, with reconnaissance geology observations on Togian Islands. Oldest rocks are sediments, intruded by young volcanics (but no recent activity). Raised reef terraces younger than Tf/Miocene)

Umbgrove, J.H.F. (1939)- Madreporaria from the Bay of Batavia. Zoologische Mededelingen 22, 1, p. 1-64.
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Umbgrove, J.H.F. (1939)- Madreporia from the Togian reefs (Gulf of Tomini, North Celebes). Zoologische Mededelingen 22, 10, p. 265-308.
(online at: www.repository.naturalis.nl/document/149424)
(Descriptions of modern corals from steep barrier reefs, atolls and fringing reefs of Togian Islands. In setting rel. sheltered from monsoons, therefore lacking shingle ramparts and sand cays)

Umbgrove, J.H.F. (1946)- Evolution of reef corals in the East Indies since Miocene time. American Assoc. Petrol. Geol. (AAPG) Bull. 30, p. 23-31.
(Percentage-of-living-species figures useful for stratigraphic dating and correlation)

Umbgrove, J.H.F. (1947)- Coral reefs of the East Indies. Geol. Soc. America (GSA) Bull. 58, 8, p. 729-778.
(Review of investigations on coral reefs in Indonesia in 15 years before WWII. Every atoll and barrier reef studied shows evidence of subsidence. Extreme thickness of some reefs, as demonstrated by their steep submarine slopes, cannot be explained by glacial control only. Prevailing wind and wave action are important influence on upper structure of reefs. Additional examples of currents as factors of morphological importance)

Umbgrove, J.H.F. & J. Verweij (1929)- The coral reefs in the Bay of Batavia. Proc. Fourth Pacific Science Congress, Java 1929, Excursion Guide A2, p. 5-30.

Van der Horst, C.J. (1921)- Madreporaria Fungida. Siboga Expeditie Monograph 16b, Brill, Leiden, p. 1-46.
(First of series of papers on Recent corals of Indonesia, collected during Siboga Expedition)

Van der Horst, C.J. (1921)- Madreporaria of the Siboga Expedition, Part 2. Madreporaria Fungida. Siboga Expeditie Monograph 16b, Brill, Leiden, p. 53-98.
(Second of series of monographs on Recent corals of Indonesia, collected during Siboga Expedition (Part 1 by Alcock (1902), part 4 by H. Boschma)

Van der Horst, C.J. (1922)- The Madreporaria of the Siboga Expedition. Part 3: Eupsammidae. Siboga Expeditie Monograph 16c, Brill, Leiden, p. 99-127.
(online at: https://ia600404.us.archive.org/25/items/sibogaexpeditie92sibo/sibogaexpeditie92sibo.pdf)
(Third of series of monographs on Recent corals of Indonesia, collected during Siboga Expedition

Van der Meij, S.E.T., Suharsono & B.W. Hoeksema (2010)- Long-term changes in coral assemblages under natural and anthropogenic stress in Jakarta Bay (1920-2005). Marine Pollution Bull. 60, 9, p. 1442-1454
(Coral reefs in Jakarta Bay have been under long-term natural and anthropogenic stress. Coral species diversity and composition of reefs changed considerably between 1920 and 2005. About half number of species recorded in 1920 was found again in 2005)

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(online at: http://journal.frontiersin.org/article/10.3389/fmars.2014.00081/full)
(Global study of present-day geographic distributions of corals. Birds Head- Sulu Sea region is global center of peak coral diversity))

Verstappen, H.Th. (1953)- Oude en nieuwe onderzoekingen over de koraaleilanden in de baai van Djakarta. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap 70, 4, p. 472-478.
('Early and recent investigations on the coral islands in the Bay of Jakarta'. Results of 1950-1951 investigations compared with studies by Sluiter 1890 and Umbgrove 1928. Coral islands only in W part of bay. Islands probably older than 3000 years, as suggested by Umbgrove, and controlled by underlying structure. Shape and growth patterns of island largely controlled by dominant wind patterns)

Verstappen, H.Th. (1954)- The influence of climatic changes on the formation of coral islands. American J. Science 252, 7, p. 428-435.
(Comparison of modern small patch reefs in Jakarta Bay from 1875, 1927, 1935 and 1950. Shingle ramparts of coarse material originate on weather side of reefs and varied through time: in 1875 mainly on NW sides of islands (period of dominant W-monsoon), in 1927 in N, NE and E (period of dominant E-monsoon), in 1939 and 1950 most on W sides (period of dominant W-monsoon))

Verweij, J. (1930)- Depth of coral reefs and penetration of light. With notes on oxygen consumption of corals. Proc. 4th Pacific Science Congress, Java 1929, 2A, p. 277-299.
(Oxygen content of water in lagoon of one of islands in Bay of Jakarta rises during day and falls at night, suggesting production of oxygen by algae during day and significant consumption by reef at night. Lower depth

limit of reef corals controlled by depth of light penetration (corals depend on zooxanthellid algae for food), This is usually around 40m, but may be reduced in areas of clay-silt sediment supply, like Bay of Jakarta)

Verweij, J. (1930)- Coral reef studies. Treubia 12, p. 305-366.
(online at: http://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/1894/1780)
(Mainly zoological studies of Indonesian coral reefs)

Verweij, J. (1931)- Coral reef studies II. The depth of coral reefs in relation to their oxygen consumption and the penetration of light in the water. Treubia 13, 2, p. 169-198.
(online at: http://e-journal.biologi.lipi.go.id/index.php/treubia/article/view/1933/1816)
(Observations on Onrust island coral reef in W Bay of Batavia. Close correlation between amount of suspended silt (light penetration) and lower depth limit of growth of reef corals)

Verweij, J. (1931)- Coral reef studies III. Geomorphological notes on the coral reefs of Batavia Bay. Treubia 13, 2, p. 199-215.
(online at: e-journal.biologi.lipi.go.id/index.php/treubia/article/download/1934/1817)
(Observation on coral islands Dapur, Damar Besar (edam) and Pulau Ayer (Hoorn) in Bay of Jakarta, after initial work of Umbgrove. Not much coral growth below ~10-15m, due to silt content of bay water)

Wahlmann, G.P. (2002)- Upper Carboniferous- Lower Permian (Bashkirian- Kungurian) mounds and reefs. In: W. Kiessling et al. (eds.) Phanerozoic reef patterns, Soc. Sedimentary Geology (SEPM) Spec. Publ. 72, p. 271-338.
(Includes mention of Timor Permian (Sakmarian) Tubiphytes (= Shamovella) grainstones)

Wallace, C.C. (1997)- The Indo-Pacific center of coral diversity re-examined at species level. In: Proc. 8th Int. Coral Reef Symposium, Panama, 1, p. 365-370.
(On distribution pattern of Acropora coral species in Indonesia)

Wallace, C.C. (1999)- The Togian Islands: coral reefs with a unique coral fauna and an hypothesized Tethys Sea signature. Coral Reefs 18, p. 162.
(Acropora coral fauna of Togian Islands, N Sulawesi, high diversity and includes relict Tethys Sea elements (conclusion re-assessed in Wallace 2001: more likely remnant Pacific fauna))

Wallace, C.C. (2001)- Wallace's line and marine organisms: the distribution of staghorn corals (*Acropora*) in Indonesia. In: I. Metcalfe (ed.) Faunal and floral migrations and evolution in SE Asia-Australasia, Balkema, p. 168-178.
(Distribution patterns of 89 species of Acropora staghorn coral, which has highest diversity in Wallacea region (but is not center of origin). In Indonesian Archipelago overlap of Indian Ocean species (diminishing E-ward) and Pacific Ocean species (diminishing W-wards), with stronger Pacific influence)

Wallace, C.C., G. Paulay, B.W. Hoeksema, D.R. Bellwood et al. (2000)- Nature and origins of unique high diversity reef faunas in the Bay of Tomini, Central Sulawesi: The ultimate "center of diversity"? Proc. 9th Int. Coral Reef Symp., Bali 2000, 1, p. 185-192.

Watanabe, T., M.K. Gagan, T. Correge, W.S. Hantoro, H. Scott-Gagan, J. Cowley, G.E. Mortimer & M.T. McCulloch (2002)- Palaeoclimate reconstruction using *Diploastrea* and *Porites* corals from Alor in Eastern Indonesia. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 2, p. 645-.
(Alor in Banda Sea is in core of Indo-Pacific warm Pool. 18O isotopes of coral growth stages used to monitor inter-annual climate changes. El Nino events in last 30 years clearly reflected by increased 18O)

Webster, J.M., J.C. Braga, D.A. Clague, C. Gallup, J.R. Hein, D.C. Potts, W. Renema, R. Riding et al. (2009)- Coral reef evolution on rapidly subsiding margins. Global Planetary Change 66, p. 129-148.
(Series of submerged coral reefs in Huon Gulf (PNG) and around Hawaii. Rapid subsidence (2-6 m/ka over last 500 ka), combined with eustatic sea-level changes, responsible for repeated drowning and backstepping of

coral reefs. Reef drowning characterized by distinct biological and sedimentary sequence. In short term, rate and amplitude of eustatic sea-level changes control initiation, growth, drowning or sub-aerial exposure, subsequent reinitiation, and final drowning. Over longer time scales (>100-500 ka) tectonic subsidence and basement substrate morphology influence reef morphology and backstepping geometries)

Webster, J.M., L. Wallace, E. Silver, B. Applegate, D. Potts, J.C. Braga & C. Gallup (2004)- Drowned carbonate platforms in the Huon Gulf, Papua New Guinea. Geochem. Geophys. Geosystems 5, 11, Q11008, p. 1-31.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2004GC000726/pdf)
(W Huon Gulf actively subsiding foreland basin with 14 drowned carbonate platforms and many pinnacles/ banks, increasing in age (~20-450 kyr) and depth (0.1-2.5 km) NE to Ramu- Markham Trench. Superimposed on downward flexing of platforms toward trench is tilting of deep platforms to NW and shallow platforms to SE. This may reflect encroaching thrust load from NW (Finisterre Range). Over shorter time scales (~100 kyr) eustatic sea level changes critical in controlling initiation, growth, drowning of platforms. Tectonic subsidence and basement morphology influence backstepping geometry and tilting of platforms over longer timescales)

Webster, J.M., L. Wallace, E. Silver, D. Potts, J.C. Braga, W. Renema, K. Coleman-Riker & C. Gallup (2004)- Coralgal composition of drowned carbonate platforms in the Huon Gulf, Papua New Guinea: implications for lowstand reef development and drowning. Marine Geology 204, p. 59-89.
(Coral, algae, larger forams facies models and development of Pleistocene carbonate platforms, Huon Gulf. Facies from shallow to deep: 1. coral reef lst (reef flat-upper reef slope <20m; with Calcarina), 2. coralline algal- foraminiferal nodule limestone, 3. Halimeda limestone (deep fore-reef slope ~20-60m; with Amphistegina, Heterostegina, Operculina), 4. Coralline algal- foraminiferal crust limestone (deeper fore-reef slope ~60-90m; with Amphistegina, Cycloclypeus, Heterostegina operculinoides, Operculina) and 5. Planktonic foraminifera limestone (with Amphistegina, Cycloclypeus, Heterostegina))

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(Tectonics control location of SE Asian Cenozoic carbonate deposits. 70% of 250 shallow marine carbonate formations in SE Asia initiated as attached features, 90% of economic hydrocarbon discoveries developed over antecedent topography, of which >75% isolated platforms. Economic reservoirs mainly in backarc and rift-margin settings (40% each). Demise of many platforms influenced by tectonic subsidence, often in combination with eustatic sea-level rise and environmental perturbations. Fractures enhance reservoir quality or may cause compartmentalization of reservoirs through formation of fault gouge or fault leakage)

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