

GLOSSARY OF PLATE TECTONIC AND PALEOGEOGRAPHIC TERMS

Acadian Orogeny - the collision between Avalonia and Laurentia during the Silurian-Devonian, closing the Iapetus ocean. Some Acadian events could have been related to the Gondwana-Laurentia collision.

Afar - hot spot and mantle plume in the Horn of Africa. Afar plume influenced the opening of the Red Sea and the Gulf of Aden.

Alboran Arc - terrane in the western Mediterranean, associated with the Tertiary opening of the Alboran Sea, collided with Spain and Morocco in the Betic-Riff-Gibraltar area.

Alborz - mountains in Iran along the south margin of the Caspian Sea. Alborz formed separate plate, part of the Cimmerian terranes, which collided with Eurasia in the late Triassic, rifted away in Jurassic, amalgamated with the Asian blocks in the Alpine orogeny in the Neogene.

Alborz Trough - part of the South Caspian, opened in the Tertiary, with the possible sea-floor spreading.

Aleutian Arc - island arc with the intensive volcanic activity, between Pacific and the Bering Sea, originated in the Paleogene.

Alice Springs Orogeny - an orogenic event in central Australia during the Early Carboniferous.

Alleghenian Orogeny - Carboniferous deformation events in North America, result of the collision of Gondwana and Laurussia cratons; see also Hercynian orogeny.

Alpha Ridge - see Makarov.

Alpine Fault - strike-slip fault in New Zealand. Active in the Tertiary.

Alpine Orogeny - a series of the Cretaceous through Cenozoic collisional orogenic events between Africa, Europe, Arabia and Central Asia. The orogeny was most intense during the Miocene. It involved continental plates like Iberia, Apulia/Adria, Sardinia, Kabylia, Calabria,

Alpine, Carpathian (Inner Carpathians and Tisa), Greek (Ionian, Greece, Pelagonian, Serbo-Macedonian, Turkish Taurus, Kirsehir, Sakariya, Pontides), Iranian (Lesser Caucasus, Alborz, Sanandaj-Sirjan, Lut), Afghan (Helmand, Farah) plates. The Alpine Orogeny formed numerous orogenic belts in Europe, North Africa, and the Middle East.

Amiache-Chaucha - terrane accreted to South America in the latest Cretaceous-Paleogene.

Amuria - a plate accreted during the Late Paleozoic. It was connected with Tarim during the Permian, sutured to the North China-Tarim plate during the Triassic, and collided with Eurasia during the Jurassic time.

Anadyr-Bristol Arc - terrane formed in the Eocene in the northeastern Pacific between Chukotka and Alaska.

Andean Orogeny - a series of numerous orogenic events in western South America during the Tertiary. The Andes formed as a result of continuous continental-oceanic collision during the last 300 million years along the Pangean and, later, Pacific rim.

Antler Orogeny - a continental-oceanic collisional orogenic event in western North America during the Devonian - Early Carboniferous.

Anui - one of the Proto-Arctic oceanic basins which existed during the Mesozoic time between coast of East Siberia (including Verkhoyansk), Taimyr and Chukotka, probably connected with Anvil Ocean, finally closed during Cretaceous time.

Anvil - a back-arc basin that separated island arcs from the northwestern part of the North American craton in the Triassic. It closed in the Middle Jurassic.

Apulia/Adria - a continental plate that was rifted from Gondwana and collided with central Europe during the Alpine Orogeny. It includes Adriatic Sea and adjacent part of Italy, Southern Alps and Dinarides. It existed as a separate plate during Cretaceous-Tertiary time. On a generalized, small-scale global maps Apulia includes Italy, Greece, the Balkan area, the Pannonian Basin, and central (Inner) Carpathian.

Argo - plate, rifted away from Australia in the Jurassic.

Arktida - enigmatic continent including plates existing in the Arctic region. Possibly collided with Laurentia in the Paleozoic.

Atholian Orogeny - Cambrian-Ordovician event, which caused deformation in the eastern North America.

Austroalpine - see Ligurian.

Avalonia - a separate plate in the Early Paleozoic, consisting of the Ardennes of Belgium and northern France, north Germany, northwestern Poland, England, Wales, southeastern Ireland, the Avalon Peninsula of eastern Newfoundland, much of Nova Scotia, southern New Brunswick, and some coastal parts of New England. Sutured with Baltica along the Tornquist-Teisseyre line during the Silurian, and collided with Laurentia in the Silurian - Devonian (Acadian Orogeny).

Baikalian Orogeny - the late Vendian orogenic events, which caused deformations in the Baikal Lake area in southern Siberia.

Baltica - was a separate continental plate in the Early Paleozoic, consisting of the major part of northern Europe. It was bounded on the west by the Iapetus suture, on the east by the Ural suture, on the south by the Variscan/Hercynian suture, and on the southwest by a suture located near the Tornquist-Teisseyre line. Collided with Laurentia forming Laurussia in the Silurian (Scandian Orogeny).

Baluchistan - plate, rifted away from Gondwana in the Jurassic, collided with Asian in the Tertiary, presently SW Pakistan.

Banggong Suture - suture between Qiantang and Lhasa.

Barentsia - plate, which included Svalbard and part of the Barents Sea, part of Laurentia during the Paleozoic.

Bassarides - see Mauretinides.

Benambran Orogeny - Silurian event, which caused deformation in eastern Australia.

Benue Trough - Cretaceous fault system (rift and strike-slip faults) in Central Africa.

Borchgrevink-Tasman Orogeny - Silurian event, which caused deformation in Australia Tasmania and Antarctica.

Boreal Realm - northern oceans and seas of somewhat speculative configuration which existed in the Mesozoic era.

Bounty Trough - basin in the southwest Pacific, open in the late Cretaceous by spreading between the Campbell plateau and the Chatham Rise.

Bowling Orogeny - Silurian-Devonian event, which caused deformation in Australia.

Bresse Trough - see Rhine.

Briançonnais - terrane in Alps between Ligurian Ocean and Valais trough.

Cadomian Orogeny - the latest Vendian orogenic events, which caused deformations of Cadomian terranes in Europe from Iberia throughout NW France, Erzgebirge in Germany, Czechia, southern Poland, Carpathians to the Transcaucasus area.

Calabrian Terranes - terranes in the western Mediterranean, associated with the Neogene opening of the Tyrrhenian Sea, collided with Apulia and Sicily.

Caledonian Orogeny - synonym for Scandian Orogeny.

Canadian Basin - the western part of the Arctic Ocean between North America and the Lomonosov Ridge. Originated by seafloor spreading following separation of the North Slope of Alaska/ Chukotka plate from the North American craton in the Cretaceous.

Canning Basin Rift System - Devonian rifts in Australia including the Fitzroy Trough.

Cape Fold Belt - South African Late Paleozoic mountains. These were remnants of a large Gondwana mountain system.

Caribbean Plate - oceanic plate, partially of the back-arc origin, partially captured Farallon plate, with the continental crust fragment, forms the bottom of the Caribbean Sea.

Carolina Terrane - plate, which acted as indentor in the Silurian-Devonian.

Chinese Plates - separate plates of South China and North China, which probably rifted from Gondwana during the Middle Paleozoic and drifted northward and assembled in the Triassic to Early Jurassic.

Chukotka - now, the northeastern part (peninsula) of the Russian Republic. Part of the Chukotka-North Slope of Alaska plate which rifted away from Laurasia in the Early Cretaceous and collided with Siberia in the Late Cretaceous.

Cimmerian Orogeny - a series of collisional events between Laurasia, Cimmerian, and the South-East Asian plates during the Late Triassic-Jurassic.

Cimmerian Terranes (Continent) - series of continental plates rifted away from Gondwana during the opening of the Neotethys Ocean in the Early Permian. They include Turkish, Iranian, Afghan plates, Tibet (Qiantang and Lass), and the Malaya plates; connected with Indochina, and Sibumasu. Some of these plates collided with Laurasia during the Cimmerian orogeny in Late Triassic to Late Jurassic; some were amalgamated into the Alpine orogenic system in Cretaceous and Cenozoic.

Cocos Plate - see Farallon.

Czorsztyn Ridge - intraoceanic ridge between the Pieniny Klippen Belt Ocean and Outer Carpathian trough.

Damara Orogeny - the latest Vendian-Cambrian orogenic events, which caused deformations in southern Africa.

Deccan Traps - late Cretaceous, hot spot related, flood basalts in India.

Dnepr-Donetsk-Pripyat Rifts - rifts in the Eastern Europe, turned into aulacogen, developed during the Devonian time.

Dzungar - see Irtysh.

East China Sea - back-arc basin, opened in the Tertiary with the eastward movement of the paleo-Ryukyu arc.

East Siberia (Angara and Verkhoyansk) - a separate plate in the Early Paleozoic. Was sutured with Baltica and Kazakhstan during the Carboniferous to Permian. It is now bounded on the west by the Urals and the Irtysh crush zone, in the south by the South Mongolian arc and on the northeast by the Verkhoyansk fold belt. Relation of the Angara and Verkhoyansk plates as well as relation of East and West Siberia remain speculative.

Eastern Alps Plate - see Ligurian.

Ellesmerian Orogeny - see Innuitian Orogeny.

Eurasian Basin - the eastern part of the Arctic Ocean between the Lomonosov Ridge and the continental shelf of Eurasia, originated as part of the North Atlantic opening during the Tertiary.

Eurekan Orogeny - compressional Paleogene event in the Arctic (Greenland, Svalbard, Canadian islands), response to the sea-floor spreading in the Labrador Sea and the Baffin Bay.

Farallon Plate - part of the Pacific plate system, large in the Cretaceous, partitioned during the Tertiary into Juan de Fuca, Cocos, and Nazca plates. Part of Farallon plate, captured between South and North America formed the Caribbean Sea basement in the Late Cretaceous to Eocene.

Figueiro Fracture - transform fault in the Central Atlantic between Spain and Canada.

Finnmarkian Orogeny - Cambrian-Ordovician event, which caused deformation in the eastern North America.

Franklinian Orogeny - Silurian orogenic event in the northwestern Canada, possibly a result of the collision between Verkhoyansk part of Siberia and North Slope-Chukotka part of Laurentia.

Gissar - mountains in Central Asia. Plate accreted to Kazakhstan in Carboniferous-Permian time.

Gondwana - supercontinent from Cambrian to Jurassic time. The core of Gondwana includes South America, Africa, Madagascar, India, Antarctica, and Australia. Plates that have been part of Gondwana at some time during the Paleozoic include Yucatan, Florida, Avalonia, central and southern Europe, China (three separate blocks), Tarim, Karakum, Turkey, Iran, Afghanistan, Tibet, and Southeast Asia. Gondwana collided with Laurussia forming Pangea in the Carboniferous, and separated again in the Middle Jurassic. It was fragmented in a series of Middle Jurassic-Cretaceous rifting and seafloor spreading events.

Grampian Orogeny - Cambrian-Ordovician event, which caused deformation in Scotland.

Greater Antilles Arc - island arc between Caribbean plate and Atlantic, moved eastwards during the Cretaceous-Tertiary from the Pacific Ocean to the present position.

Greater Caucasus - Mountains between SE Europe and Asia formed after closing Greater Caucasus -proto-South Caspian Ocean in the Neogene. Greater Caucasus plate collided with Baltica in the late Paleozoic.

Halstatt - see Meliata.

Helmand Plate - Afghanistan, one of the Cimmerian terranes, collided with Asia in the Jurassic.

Hercynian Orogeny - Devonian-Carboniferous collisional events between the European part of Laurussia and terranes from Spain to Poland. The Hercynian Orogeny and related North American events (Alleghenian-Ouachita) formed the central Pangean Mountain Belt during the Permo-Carboniferous.

Himalayan Orogeny - a series of Cretaceous through Tertiary orogenic events, which culminated with the Tertiary collision of India and Eurasia. Formed Himalayan and adjacent mountain belts and strike-slip fault systems in Asia. Has had major impact on southeast Asian plate tectonic development during the Tertiary.

Iapetus Ocean - ocean between Baltica, Avalonia, and Laurentia during the Early Paleozoic, closed in the Devonian.

Inner Carpathians - mountains in Central Europe - separate plate during Jurassic-Cretaceous, accreted to Europe in Late Cretaceous-Paleogene; see Ligurian.

Innuitian (Ellesmerian) Orogeny - a collisional orogenic event in the Canadian Arctic Island and perhaps in the Lomonosov ridge during the Late Devonian - Early Carboniferous.

Ionian Platform - western Greece and the adjacent Ionian sea, in the Mesozoic connected Apulia and Taurus plate; see Pindos.

Irtysh-Dzungar Fold Belt - mountains resulting from the collision between East Siberia and Kazakhstan in the Early Carboniferous.

Izanagi Plate - a fragment of the Cretaceous Pacific Ocean plate system (eastern part), subducted under the Asian craton.

Izo-Bonin Arc - island arc collided with Japan in the Neogene.

Juan de Fuca Plate - see Farallon.

Kara-Bogaz - during the Early Paleozoic time the Kara-Bogaz plate was the fragment of Gondwana, connected with Karakum. It was accreted to Kazakhstan in the Early Permian forming part of the Turan platform in Central Asia.

Karakum - during the Early Paleozoic time Karakum plate was fragment of Gondwana, connected with Tarim. Accreted to Kazakhstan in Early Permian forming Turan platform in Central Asia.

Karoo System - a failed Permian to early Jurassic rift system in eastern Africa.

Kazakhstan - plate originated in the Silurian and grew during the Paleozoic by the accretion of volcanic arcs, especially Kipchak arc, related trench deposits, and exotic terranes; sutured with East Siberia and Baltica in the Permo-Carboniferous. Today includes the Kazakhstan Republic and part of Western Siberia.

Kerguelen Plateau - volcanic plateau (Large Igneous Province) in the Indian Ocean formed in the Cretaceous.

Khatyrka, Koni-Murgal, Koryak - small, enigmatic terranes and volcanic arc accreted to the northeastern margin of Eurasia during the Cretaceous-Tertiary time.

Kipchak Arc - volcanic arc that existed somewhere east of Baltica and Siberia in the Early Paleozoic, amalgamated into the Kazakhstan plate during the Silurian time.

Kirsehir - central Turkey, separate plate in the Mesozoic; see Pindos.

Kohistan – small plate of the Gondwanian origin, accreted to Eurasia in the Pakistan-India area during the Late Cretaceous.

Kolyma-Okhotsk-Cherski Plate - synonym for Verkhoyansk plate.

Koni-Murgal - see Khatyrka.

Koryak - see Khatyrka.

Kula Plate - a fragment of the Pacific plate system (northeast part). It was subducted under the North American craton during the Oligocene.

Kurgovat - see Pamir.

Kurile Arc – island arc between Pacific and the Okhotsk Sea originated in the Neogene.

Laramide Orogeny - orogenic movements in western North America during the Eocene through Oligocene. Term is often incorrectly used for the Late Cretaceous-Paleocene phase of the Alpine Orogeny in Europe; see Subhercynian.

Laurasia - supercontinent from Late Paleozoic to Early Cretaceous time, consisting of Laurentia, central and northern Europe, and Asia (excluding India and Arabia). The assembled Laurasia was the northern part of Pangea from Late Permian to Early Jurassic, it separated from Gondwana in the Middle Jurassic, and continued to fragment into the Tertiary when North America was separated from Eurasia by the opening of the North Atlantic.

Laurasia I - Silurian-Devonian continent, which included Avalonia, Baltica, Laurentia and Siberia.

Laurentia - was a separate plate in the Early Paleozoic, consisting of the major part of North America, northwest Ireland, Scotland, Greenland, Barentsia (Svalbard), and the Chukotka Peninsula. The Early Paleozoic margin of Laurentia can be recognized in the Appalachians.

Laurussia - a separate, large continental plate in Silurian through Devonian time. Originated by collision of Baltica and Laurentia during the Scandian Orogeny. It was the part of Pangea during the Late Paleozoic.

Lhasa Plate - present day southern Tibet, existed as separate plate in the Mesozoic. The relationship between the Lhasa plate and the Cimmerian continent during periods of rifting and collision is speculative. Finally collided with Eurasia during Cretaceous time.

Ligurian, Penninic, Pieniny Klippen Belt Oceans - opened in the Jurassic Time between Apulia Eastern Alps (Austroalpine units), Inner Carpathian plates and Europe, closed during the Alpine orogeny in Tertiary.

Limagne Trough – see Rhine.

Lomonosov Ridge - a topographic high (remnants of Paleozoic continental crust, see Innuitian Orogeny) in the Arctic Ocean between the Canadian and Eurasian Basins.

Luconia - terrane in SE Asia, collided with Borneo in the Oligocene.

Lut - eastern Iran, separate plate, part of the Cimmerian terranes, collided with Eurasia in the Late Triassic, rifted away in Early Cretaceous, amalgamated with the Asian blocks in the Alpine orogeny in the Neogene.

Makarov Basin - narrow, oceanic type basin in the Arctic opened in the Cretaceous, by rifting the Alpha ridge away from the Barents plate. This opening was connected with the rifting in the Zyrianka basin on Eurasian continent.

Maker - block accreted in the Caucasus area in the Triassic.

Malopolska High - southern Poland, perhaps part of Avalonia, collided with Baltica in the Silurian-Devonian.

Mamonia - Triassic ophiolites on Cyprus

Mauretinides, Bassarides, Rokelides - a mountain systems in western Africa, remnants of the central Pangean Mountain Belt, which originated as a result of collision between Gondwana and North America in the Late Paleozoic.

M'Clintock Orogeny - Ordovician event, which caused deformations in the Svalbard area.

Melanesian Arc - an island arc in the southwest Pacific, collided with the Australia-New Guinea plate in the Late Tertiary.

Meliata-Halstatt Ocean - narrow basin with the oceanic crust, opened in the Triassic between Eurasian margin and Hungarian Tisa block.

Moesia - parts of Romania and Bulgaria; plate sutured to Baltica during Paleozoic (Silurian-Devonian?).

Mongolian-Okhotsk Embayment - an oceanic embayment between Amuria and Laurasia (Siberia). Originally formed as the Panthalassa embayment in the Late Paleozoic and closed in the Early Cretaceous. Folding and intrusion of granitic batholiths in the Mongolian and the trans-Baikal area followed this.

Nazca Plate - see Farallon.

Neotethys - large Mesozoic ocean between Gondwana (Australia, India, Arabia, Africa) and Eurasia. It was formed by rifting of the Cimmerian plates away from Gondwana in the Early Permian, enlarged in the Triassic, and connected with central Atlantic during the Jurassic. Several branches: Ligurian-Penninic-Pieniny Klippen Belt, Meliata, Vardar, Pindos, Tauric, Greater Caucasus, Sebzevar, and Sistan oceans existed during the Mesozoic time. Most of Neotethys was closed in the Himalayan-Alpine Orogeny; fragments are included in the present day Indian Ocean and Mediterranean Sea.

Nevadean Orogeny - collision of Stikinia and other terranes with the western United States during the Jurassic.

Newark Rift System - failed Triassic-Jurassic rift basins of the eastern U. S. A.

North Slope - see Chukotka.

Okhotsk Sea Block - block under the Okhotsk sea, accreted to Eurasia in the Paleogene.

Okinawa Trough - back-arc basin in the East China Sea. Opened in the Neogene.

Oldredia - supercontinent, which encompassed all major plates during the latest Silurian- Early Devonian after collision of Gondwana and Laurentia.

Olutor - arc, collided with the Eurasian margin in the Paleogene.

Omolon Massif - microplate accreted to Siberia in the Jurassic, belonged to the Verkhoyansk superterrane.

Ontong Java Plateau - volcanic plateau (Large Igneous Province) in the Pacific formed in the Cretaceous.

Ouachita - Mountains in the southwestern United States, result of Carboniferous-Permian collision of Gondwana and Laurentia, see also Hercynian.

Outer Carpathian Trough - rift with the partially oceanic crust opened in the Late Jurassic-Cretaceous between Inner Carpathians and European margin, closed in the Tertiary.

Outer Carpathians - thrust-and-foldbelt mountains in the central and eastern Europe formed in the Tertiary.

Pacific Plate - oceanic plate born in the Mesozoic, increased its size during Tertiary, today forms most of the Pacific Ocean.

Pacific-Aluk - spreading center in the Cretaceous Pacific Ocean, collided with New Zealand in the Late Cretaceous.

Palavan - see South China Sea.

Paleoasian Ocean - ocean between Kazakhstan and Gondwana in the Paleozoic, closed during the late Paleozoic time.

Paleo-Ryukyu Arc - see East China Sea.

Paleotethys - large Paleozoic ocean between eastern Gondwana and the East Siberia, Kazakhstan, and Baltica plates, originated in the Early Devonian as a remnant of the eastern part of the Rheic Ocean. Paleotethys closed in the Early to Middle Jurassic during the collision of Cimmeria with Laurasia. The limits of the eastern Paleotethys and the relationship with Panthalassa and the Chinese plates are speculative.

Pamir - mountains in central Asia, several Pamir terranes, like North Pamir, Kurgovat, South Pamir, collided with Asia during Paleozoic and Mesozoic time.

Pan-African Orogeny - major Late Precambrian orogenic events related to the formation of the Precambrian Gondwana and Pannotia.

Pangea - a single continent comprising all the world's landmasses. The term Pangea describes the continental configuration from the Carboniferous through Middle Jurassic time. By the Late Paleozoic, Laurussia, East Siberia, Kazakhstan, and Gondwana had collided to form the western, major part of Pangea. The Asian plate was still separate until the Early to Middle Jurassic. Almost all continental plates were assembled for a relatively short time (about 20 million years) in the Early Jurassic following the Early Cimmerian Orogeny.

Pangean Mountain Belt - see Hercynian

Pangean Rim of Fire - system of subductions surrounding the Pangea supercontinent

Pannonian Basin – intermountain basin in the central Europe, behind the Carpathian foldbelt, formed in the Tertiary.

Pannotia - a super continent which possibly existed in the latest Precambrian. In the Early Phanerozoic Pannotia was already fragmented into Laurentia, Siberia, and Baltica. The split of Pannotia marks the beginning of the Phanerozoic. Role of Gondwana remains uncertain.

Pantelleria Trough - rift between Africa and Sicily, opened in the Neogene.

Paracel - see South China Sea.

Paratethys - a large sea in south-central Europe and central Asia formed during the Alpine Orogeny. The Black, Caspian, Azov and Aral Seas are Paratethys remnants.

Patagonia Plate - southwestern part of South America, separate plate, perhaps originally part of Laurentia, collided in the Ordovician with Gondwanian South America.

Pay-Khoy - northernmost part of the Ural foldbelt.

Pelagonian - Mesozoic plate in Greece, see Pindos.

Penninic Ocean - see Ligurian.

Pennobscotian Orogeny - Cambrian-Ordovician event, which caused deformation in eastern North America.

Pericaspian Basin (also Precaspian, North Caspian) - originated, perhaps, as a back-arc basin in the Late Paleozoic. It may be partially underlain by oceanic crust captured in the collision between Kazakhstan, Baltica, and the Ust-Yurt arc.

Phoenix Plate - fragment of the Cretaceous Pacific Ocean plate system.

Phoibic Ocean - enigmatic Early Paleozoic ocean between Laurentia and Gondwana.

Pieniny Klippen Belt - thrust-and-fold belt in Carpathians. Pieniny Klippen Belt Ocean - see Ligurian, Czorsztyn.

Pindos Ocean - branch of Tethys with the oceanic crust, between Pelagonian, Kirsehir and Sakariya blocks and Taurus-Ionian platform.

Pleionic Ocean - ocean between East Siberia and Baltica in the Early Paleozoic.

Polish-Danish Graben - rift in Central Europe, originated during the Jurassic, turned into aulacogen in the early Cretaceous, inverted in the late Cretaceous - Paleogene.

Pontides - northern Turkey. Separate Pontides plates were involved in the opening of the Black Sea. In the Paleogene Pontides were sutured with the other Turkish plates.

Proto South China Sea - a sea along the northeastern margin of Kalimantan in the Paleocene through Oligocene. It closed as the South China Sea opened along the South China margin.

Proto South-Caspian - see Greater Caucasus.

Qiantang Plate - present day northern Tibet, existed as separate plate in the Mesozoic. The relationship between the Qiantang plate, Lhasa plate and the Cimmerian continent during periods of rifting and collision is speculative. Qiantang was probably amalgamated to Eurasian in the Early Jurassic.

Rajmahal Traps - Early Cretaceous basalt eruption in India, related to the hot spot activity.

Red River Fault - transform fault between South China and Indochina, active during the Tertiary.

Rheic Ocean - large ocean between Gondwana, Laurentia, Avalonia, Baltica and East Siberia in the Ordovician to Silurian. Separated into an eastern and western part with the onset of the collision between Gondwana and Laurussia in the Devonian. The western part was closed with continued collision during the Permo-Carboniferous; the eastern part became the Paleotethys Ocean.

Rhenodanubian Trough - rift with partially oceanic crust opened in the Early Cretaceous in Alps, closed in the Tertiary.

Rheno-Hercynian Basin - rift and narrow ocean in the central Europe, opened in the Silurian-Devonian time, closed during Hercynian orogeny.

Rhine, Limagne and Bresse Troughs - Tertiary rift system in Europe, associated with a hot spot activity.

Rhodopes - mountains between Bulgaria, Greece and Turkey. Rhodopes plate was accreted to Europe in the Late Paleozoic.

Rodinia - a super continent which possibly existed in Precambrian, before Pannotia and perhaps before the assembly of Gondwana (Pan-African Orogeny).

Rokelides - see Mauretinides.

Sailarian Orogeny - Cambrian-Ordovician collision between microcontinents in the Mongolia-Tuva area.

Sakariya - central Turkey, separate plate in the Mesozoic, see Pindos.

San Andreas - strike-slip fault in California, active in the Neogene.

Sanandaj-Sirjan - separate plate during the Mesozoic in southern Iran, north of Zagros Mountains, amalgamated with the rest of Asia in Neogene.

Scandian Orogeny - collisional event between Baltica and Laurentia in the Silurian.

Synonym for Caledonian Orogeny.

Scythian Platform - parts of Ukraine and SW Russia accreted to Europe in the Paleozoic.

Sebzevar-Sistan - ocean between Lut (Iran), Eurasian (Turkmenistan and Afghanistan) margin and Afghanistan Platform, opened in the Early Cretaceous. Closed in the Tertiary.

Shatski Terrane (Rise) - fragment of the Black Sea with a continental crust basement, related to the Paleogene opening of the eastern Black Sea.

Sibumasu - South Asia plate in Paleozoic-Mesozoic.

Sikhote Alin - Mountains in southeastern Russia, plate of unknown, origin accreted to the Eurasian margin in the Cretaceous.

Sistan Ocean - see Sebzevar.

Solonker - ocean between North China and Amuria in the Paleozoic, closed in the Permian.

Sonoma Orogeny - Early Triassic arc-continent collision in the western United States

South Caspian Microcontinent - separate plate during the Mesozoic, included in the Cimmerian terranes, today block with the continental crust in the Caspian Sea.

South China Sea - a sea between South China and Borneo, opened during the Tertiary spreading event, separating North Palawan – Paracel Island microcontinent from the continental South China.

Stikinia - plate accreted in the Late Jurassic to the western North America. See Western North American Plates.

Subhercynian and Laramide Structures - intracontinental Late Cretaceous-Early Paleogene intracontinental deformations in Europe, affecting, among the others, the Harz and Holy

Cross mountains. Subhercynian and Laramide names are sometimes referred to the phases of the Alpine Orogeny.

□ **świętokrzyska Phase (Orogeny)** - Cambrian event, which caused deformation in the Holy Cross Mountains in Poland.

Taconian Orogeny (also Taconic) - orogenic events in the eastern part of Laurentia during the Ordovician, probably due to collision between Laurentia and speculative western island arcs.

Tarim Plate - part of northwest China, probably existed as a separate plate in the Early Paleozoic, sutured to Laurasia during Permian time.

Tauric Basin - proto-Black Sea - back-arc basin opened in the Triassic.

Taurus - mountains in the southern Turkey, separate plate during Mesozoic time.

Teisseyre-Tornquist Line - a major NW-SE striking suture between the east European Platform (ancient Baltica plate) and the remaining part of Europe. Well defined in Sweden, the Baltic Sea, and Poland; probably beneath the Carpathian Nappes in the Ukraine. It terminates in the Black Sea area.

Timanian Orogeny - the latest Vendian orogenic events, caused deformations in the Timan-Pechora-Kola area in NE Europe, perhaps an equivalent of the Cadomian orogeny.

Tisa - Mesozoic plate in Hungary; see Meliata.

Tornquist Sea - ocean between Baltica and Avalonia during the Cambro-Ordovician. It closed by the strike-slip suturing of Avalonia and Baltica during the Silurian.

Transcaucasus - massif in the Caucasus Mountains of the Cadomian origin. Involved in the several rifting and collisional events during the Phanerozoic.

Trupchun Phase - Alpine orogeny deformations in the Cretaceous.

Turan Platform - see Karakum.

Umbria-Marche - western central Italy. Amalgamated with the Apulia platform in Tertiary.

Ural Ocean - ocean between Karakum plate, Kazakhstan, Siberia, Baltica, and Barentsia in Devonian through Carboniferous time, closed during the Uralian Orogeny in the Permian.

The Ural Ocean was the western part of the Paleoasian Ocean during Cambrian-Silurian.

Uralian Orogeny - collisional events between East Siberia, Kazakhstan, and Baltica in Late Carboniferous through Permian time.

Ust-Urt - during the Early Paleozoic time Ust-Urt plate was fragment of Gondwana, accreted to Kazakhstan and Baltica in Early Permian forming SE margin of the Peri-Caspian basin.

Valais Trough - basin with the oceanic crust between the Briançonnais terrane and European platform, opened in the Early Cretaceous, closed in the Tertiary.

Valencia Trough - back-arc basin in the western Mediterranean, between Spain and Balearic Island, opened in the Neogene.

Vancouver Plate - fragment of the Pacific plate system off NW North America, during the Paleogene.

Vardar - western part of Neotethys.

Variscan Orogeny - synonym for the Hercynian Orogeny.

Verkhoyansk (Kolyma-Okhotsk-Cherski) Plate - easternmost part of East Siberia, probably Verkhoyansk was rifted from Angara in Late Paleozoic and docked again during the Cretaceous time. Relation of Verkhoyansk and Angara plates remains somewhat speculative.

Verkhoyansk Fold Belt - mountain system in the eastern part of the Russian Republic, originated in the Cretaceous by accretion of Verkhoyansk plates and several other exotic terranes (Omolon for example) to the East Siberian Platform.

Viluy Trough - Devonian rift on Siberia.

West Siberian Basin - formed and underlain by oceanic crust captured during the collision between East Siberia, Barentsia, and the Ural Mountain belt in the Late Paleozoic. Rifting during the Triassic and Jurassic renewed basin development.

Western North American Plates - several plates of unknown origin, amalgamated to the northwestern America during Jurassic-Cenozoic time. The better known plate names are Yukon, Stikinia, Chugatch and Alexander.

Zyrianka - see Makarov.