

INDEX

Entries in this index are of two types. For the majority of subjects, page numbers of occurrences are listed in the usual way. In the case of subjects present as headings in the original questionnaire, page numbers are omitted and reference is to their questionnaire number [e.g. Igneous activity (*see* 326-332)]. The standardized layout within the articles readily allows location of such material.

- Afghanistan, 235-253, 260, 759, 762, 770, 775, 777, 779, 784, 785
Alaska, 554, 563-589, 601, 766, 767, 773, 776, 777, 781, 782, 784, 785
Albania, 178, 179, 180, 182-184
Alborz Mountains, 187, 199, 200, 201, 213-234, 759, 762, 770, 777, 779, 782, 784, 785
Aleutian Arc, 553-561, 567, 766, 773, 783-785
Algeria *see* (Atlas Mountains)
Allochthonous rocks, 3, 17-18, 23-31, 37-45, 47-58, 61, 63, 66-82, 85, 87-89, 91-92, 94-103, 109, 116, 119, 121, 123-152, 164-183, 192, 266-276, 279, 280, 290, 293, 294, 349-352, 354, 355, 357-362, 388, 400, 401, 404, 406, 446-451, 501, 506, 507, 508, 510, 583, 584, 585, 600, 611, 612, 684-699, 770, 774
Alps
 Carnic Alps, 111
 Central Alps, 85-108, 109, 110, 115, 168, 759, 761, 777, 778, 782, 784, 785
 Dinaric Alps, 110
 Eastern Alps, 85, 86, 87, 92, 99-103, 109-126, 128, 759, 761, 777, 778, 784, 785
 Maritime Alps, 62
 Northern Calcareous Alps, 112, 113, 116, 117, 119-123
 Southern Alps, 85, 87-89, 92, 93, 103-106, 112, 116, 124
 Western Alps, 61, 87, 115
Amazon graben, 725, 730
Anatolids, 187, 188, 192, 193
Andaman Islands, 281, 291, 301, 302, 309
Andaman-Nicobar arc, 317
Andaman Sea, 301, 303
Angara Shield, 242, 255, 262, 263
Annamitic Cordillera, 301, 310
Antarctica, 381-383, 387, 404, 405, 464
Antithetic Faults, 96
Apennines, 61-84, 183, 184, 404, 759, 760, 777, 778, 782, 784, 785
Arabian Shield, 187, 191, 195, 199, 202, 203, 206, 216, 219, 220, 242
Argentina, 733-743
Argille Scagliose, 61, 78, 99, 284, 287
Atlas Mountains, 47-59, 759, 760, 777, 778, 782, 784, 785
Australia, 349, 352, 355, 357, 387, 401, 404, 405, 433, 445, 455, 463-465, 468, 469, 475-477, 482-485, 487, 783
 Continental drift of, 356, 357, 371, 376
Austria, 109-126
Bahamas platform, 625, 632
Balearic Islands, 30
Balkans, 159, 160, 170
Banda Arcs, 317, 320, 349-363, 365, 367, 370-372, 374-377, 476, 763, 770, 777, 779, 782, 784, 785
Banda Sea, 367, 368, 375, 376, 377
Barents Shelf, 751
Basement, 759, 770, 772, 773-775
 basement domes, 115, 123
 basement in each segment (*see* 76-80)
 overall definition, 789
Basement rocks
 present in island arcs
 Aleutians, 555
 Banda Arcs, 351, 355
 Cuba, 627, 630
 East New Guinea, 466
 Japan, 517, 528
 Philippines, 493
 Puerto Rico, 642, 646
 Sulawesi, 371
 Sumatra, 320, 323
Basement rocks—*contd.*
 Tonga-Kermadec, 422
 not known in island arcs
 Fiji, 427
 Lesser Antilles, 666
 New Hebrides, 436
 Solomon Islands, 454
Batholiths, 235, 258, 259, 261, 262, 304, 310, 311, 313, 327, 337, 388, 401-403, 408, 471, 497, 523, 565, 569, 572, 575, 593, 596, 601, 603, 607, 617, 618, 634, 653, 705, 708, 712, 714, 720, 737, 772
Bathymetry maps
 Aleutian Arc, 553
 Balleny Islands, 383
 Borneo to New Hebrides, 476
 Caribbean, 628
 Fiji-Lau-Tonga, 418
 Fiji-New Zealand, 419
 Greece, 160
 Lesser Antilles, 664
 Macquarie Ridge, 382
 New Hebrides, 435
 New Zealand, 391
 Philippine Sea, 494
 Puerto Rico, 640
 SE. Asia, 339
 Spitsbergen, 751
Bauxite, 7, 179
Bay of Bengal, 243, 309
Benioff Seismic zone, 401, 402, 405, 421, 439, 467, 468, 471, 472, 506, 556, 558, 630, 667, 773
Bering Sea, 553, 555, 556
Betic cordilleras, 23-35, 759, 760, 777, 778, 782, 784, 785
Bismarck archipelago, 453
Bismarck Sea, 463, 467, 472, 473
Bituminous limestone, 284

- Bituminous shale, 190
 Bohemian Massif, 116, 119, 128
 Bolivia, 733–743
 Borneo, 302, 322, 323, 333–347, 356–358, 365, 367, 377, 476, 491, 494, 496–499, 763, 770, 772, 776, 779, 784, 785
 Brazilian Shield, 723, 730
 Bulgaria, 162, 170, 172, 187, 192
 Burma, 243, 270, 279–299, 302, 305, 306, 307, 323, 763, 770, 779, 784, 785
 Burma–Malaya orogen, 242
- Calabria, 52
 Caledonian orogeny, 37, 54, 89, 95, 104, 105, 127, 139, 187–189, 220, 712, 747, 751
 Cambodian Shield, 301
 Carpathians, 109, 110, 127–157, 759, 761, 775, 778, 782, 784, 785
 Caspian depression, 214, 215, 218, 220
 Caspian Sea, 213, 221
 Cassiterite, 325
 Caucasus, 219, 220
 Celebes (*see* Sulawesi)
 Celebes Sea, 365, 367, 368, 374, 491
 Chile, 733–743, 769, 775, 784, 785
 China, 301, 302, 307, 494
 Chromite, 249, 250
 Cleavage, in each zone, (*see* 359–362)
 Coal, 95, 98, 118, 120, 138, 141, 145, 150, 151, 153, 188, 189, 218–220, 224, 228, 242, 250, 270, 291, 296–298, 305, 342, 343, 396, 404, 406, 409–412, 479, 491, 495, 497, 499, 506, 509, 519, 525, 528, 530, 549, 568, 573–575, 577, 580, 581, 584, 585, 606, 614, 620, 713, 716, 719, 721, 750, 754, 778–781
 Colombia, 628, 705–725, 727, 728, 731, 732, 769, 775–777, 781, 782, 784, 785
 Continental Drift
 closing of Tethys ocean, 783
 continental collisions, 216, 475, 484, 784, 785
 contraction of Pacific, 783
 disintegration of Gondwanaland, 306, 307, 356, 357, 783
 drift of—
 Australia, 356, 357, 376, 484
 Caribbean, 630
 Eurasia and Africa, 783
 India, 262, 263, 270, 356
 India and Arabia, 242
 Malay–Thai peninsula, 306, 307, 309
 New Zealand, 387, 404
 Northern Alaska, 568
 opening of oceans—
 Atlantic and Arctic Oceans, 751, 783
- Continental Drift—*contd.*
 Indian Ocean, 783
 Red Sea, 199
 Tasman Sea, 404, 464, 468
 rotation of—
 N. Apennines and Corsica, 70
 NE. Japan, 518, 523
 Spain, 3, 6, 11
 separation of Australia and Antarctica, 464, 469
 Coral Sea, 454, 463, 465, 468, 469
 Cordilleran-type orogens, 784
 Corsica, 61, 64
 Corsica—rotation of, 70
 Corsica–Sardinia massif, 66–67, 68, 69
 Crete, 159, 160, 161, 165, 178, 180, 182–184
 Crustal formation,
 Woodlark Basin, Papua, 468
 Crustal profiles,
 Aleutians, 555
 Chile, 736
 Colombia, 710
 E. Alps, 115
 Japan, 516
 Lesser Antilles, 668
 New Guinea, 472
 Philippine region, 495
 Puerto Rico Trench, 648
 Tonga–Lau, 420
 W. Canada, 600, 615
 Crustal thickening, 555, 557, 602
 Cuba, 625–638, 768, 774, 775, 777, 781, 784, 785
- Décollement structures, 759
 in Alaska, 574, 585
 E. Alps, 124
 E. Atlas, 47, 58
 Hellenides, 166
 Jura, 85, 88, 93–100, 103
 N. Apennines, 71
 Pyrenees, 17–18
 Taiwan, 506
 W. Canada, 600–603, 609
 Zagros Mountains, 200, 202, 205, 206, 210
- Deformation
 effect on stratal thickness (*see* 106)
 in each zone (*see* 344–348)
 phase of deformation, definition, 789
- Diamonds, 309
- Diapirs
 of basement, 124
 diapiric folds, 127, 136, 139, 141, 142, 145, 147, 183
 evaporite diapirs, 12, 13, 19, 53, 58, 121, 183, 200, 206, 208, 210, 632
- Diapirs—*contd.*
 of quartz phyllite, 125
 in Trinidad, 676
 of ultramafics, 631
 Dinarides, 109, 110, 159–161
- East China Sea, 526
 East New Guinea, 463–474
 Ecuador, 705, 711, 713, 714, 725–732, 769, 775, 784, 785
- Elements,
 definition, 789
 dimensions or outcrop areas in each zone,
 (*see* 315–317)
 in each segment (*see* 301)
 in each zone (*see* 312–314)
- Emerald deposits, 721
 Ensimatic crustal development, 496
 Epieugeosynclinal molasse, 480
 Erosion surfaces (*see* 108)
 Eugeosynclinal–Miogeosynclinal couple, 308
 Eugeosynclinal sequences, 64, 68, 69, 76, 77, 79, 85, 89, 91, 92, 96, 97, 127, 132, 135, 136, 199, 203, 206, 221, 301, 304–312, 333, 334, 338, 340, 342, 345, 388, 390, 400, 401, 404, 475, 479–490, 505, 506, 514, 517, 525, 526, 530, 556, 557, 559, 563, 565, 569, 592, 595, 597, 601–603, 625, 627, 629–631, 675, 705, 710, 712, 725, 728–731, 733, 738, 739, 741
 Exogeosynclines, 475, 479, 481, 483, 486
- Faulting
 in each zone (*see* 366–374)
 major faults (*see* 111–118)
 transcurrent or strike-slip faults (*see* 133)
 other major transcurrent faults, 6, 11, 52, 68, 89, 99, 103, 113, 189, 202, 211, 216, 238, 242, 261, 289, 304, 309, 319, 320, 387, 389, 390, 395, 397, 403, 405, 412, 475, 480, 481, 494–495, 511, 518, 568, 573, 576, 579, 599, 603, 644, 683, 691, 709, 777
 transform faults, 93, 159, 306, 385, 403, 405, 496, 601, 603, 683, 751, 783
- Faunal provinces, 202, 203, 241, 262, 518
 Fiji, 417, 419, 425–431, 438, 764, 771, 775, 777, 780, 784, 785
 Fiji plateau, 433, 434, 435, 437
 Folding contemporaneous with sedimentation, 81
- Folds
 folds in each zone (*see* 350–355)
 fold styles in each zone (*see* 356)
 references to maps of folds (*see* 357)
- Foliation structures
 in each zone (*see* 359–362)

- Geological history of each orogen (*see* 134)
- Geomorphology
 surface levels (*see* 33-37)
- Geophysical data
 geophysical evidence of orogenic structure (*see* 132)
 gravity (*see* 38-44)
 palaeomagnetic (*see* 67)
 regional magnetic (*see* 45-49)
 seismic (*see* 50-86)
- Geosynclinal stage
 at same time as orogeny in Japan, 546
 cannibalism, 132, 481, 506, 675
- Geosynclines (*see also* Eugeosynclinal sequences, Exogeosynclines, Miogeosynclinal sequences)
 in Afghanistan, 242
 Alaska, 569, 572
 Aleutian Arc, 556
 Apennines, 64, 68-70
 Borneo, 337-343
 Carpathians, 132, 133, 135-137
 Central Alps, 89, 91
 Central Iran, 221
 Chile, 733, 738-741
 Colombia, 711-713
 E. Atlas, 47
 Ecuador, 730
 Hellenides, 159, 165
 Himalaya, absence of geosyncline, 272
 Japan trench, 545, 551
 Karakorum, 262
 New Zealand, 389, 390, 394
 NE. Japan, 543
 SW. Japan
 Chichibu geosyncline, 513, 519, 530, 532
 maps of geosynclines, 522
 Sambosan-Shimanto geosyncline, 514, 519, 521, 523, 536, 537
 Taiwan, 504-507
 Thailand, 301-314
 Trinidad, 675
 W. Canada, 592, 599
 W. Irian, 475-490
 World analysis, 770-776
 Zagros Mountains, 206
- Geosynclinerium, 281
- Glaciation of mountains, 263
- Gondwanaland, 255, 262, 263, 266, 280, 306, 309, 356, 357, 733, 783
- Graben structures
 Aleutian Arc, 556
 Amazon, 725, 730
 Apennines, 78
 Banda Arcs, 358, 362
- Graben—*contd.*
 Cambay, 236, 239, 251
 Gondwana, 243
 Macquarie Island, 384
 Rhine, 86, 88, 93
 Rift Valley, Taiwan, 510
 Spitsbergen, 748, 750-752
 Sulawesi, 371, 376
 Sumatra, 322, 323
- Granitization
 solid state intrusion, 609
- Gravity
 data (*see* 38-44)
 map, Lesser Antilles, 665
 Bouguer anomaly maps
 Alaska, 566
 E. Atlas, 50
 Iran, 217
 Japan, 515
 Karakorum, 258
 New Britain and Papuan Peninsula, 465
 New Zealand, 392
 Pyrenees, 6
 Solomons, 455
 isostatic anomaly maps
 E. Atlas, 59
 E. Indies, 357
 Karakorum Mountains, 258
 New Zealand, 392
 profiles of gravity anomalies
 Chile, 736
 Colombia, 710
 Indonesia, 319
 New Zealand, 398-399
 Tonga-Lau, 420
- Gravity folding, 124
- Gravity gliding, 25, 136
- Gravity nappes, 400, 503, 506, 507, 510
- Gravity sliding, 61, 92, 96, 116, 193, 195, 349, 350, 351, 352, 354, 358, 362, 404, 405, 469, 501, 510, 641, 645, 657-660, 676, 686, 689, 699, 770, 772
- Gravity tectonics, 206-207, 211
- Greece, 159-185
- Guayana Shield, 671-673, 675, 679, 680, 683, 684, 687, 691, 692, 701, 706, 709, 725, 727, 729, 730, 774
- Gulf of Mexico, 630
- Gulf of Thailand, 303, 311, 312
- Haematite, 209, 248
- Halokinesis, 12, 13, 19, 53, 58, 121, 183, 199, 201
- Heat flow (*see* 72-74)
 map of heat flow in Japan region, 518
- Hellenides, 159-185, 759, 761, 776-778, 784, 785
- Hercynian orogeny, 3, 6, 8, 10-17, 19, 23, 24, 27, 64, 68, 75, 93, 95, 102-105, 109, 110, 115, 118, 124, 130, 166, 187-189, 220, 245, 255, 261, 526, 706, 708, 709, 712, 722, 728, 759
- Himalaya, 242, 255, 267-278, 289, 307, 759, 762, 770, 777, 779, 782-785
- Hindu Kush, 235, 237, 239, 241, 242, 245, 255, 258-260
- Historical movements (*see* 75)
- Hokkaido, 524-526
- Hungarian Basin, 109, 110, 115, 128
- Hydrothermal mineralization, 120
- Igneous activity, in each zone (*see* 326-332)
- India, 218, 239, 242, 251, 262, 263, 267-280, 309, 356
- Indian Shield, 235, 236, 241-243, 250, 251, 255, 266, 270, 272, 273, 306, 309
- Indoburman Ranges, 279-299, 317
- Indochina, 305, 307
- Indonesia, 302. (*See also* Banda Arcs, Borneo, Sulawesi, Sumatra and West Irian)
- Iran, 187, 195, 199-234, 235, 237, 239, 241-243, 245-249, 759, 770, 783
- Iraq, 195, 201
- Island arcs, 382, 385, 390, 402, 757, 772, 775, 776, 782, 784
 ancient examples, 160, 169, 241, 281, 285, 387, 401, 438, 468, 625-661, 663, 772, 774
 modern examples
 Aleutian arc, 553-561
 Banda arcs, 349-363
 Japan, 513-552
 Kurile arc, 514, 526, 783
 Lesser Antilles, 663, 670
 Mariana-Bonin arc, 494, 499, 523, 545-546, 772, 783
 New Hebrides, 433-443
 Papua New Guinea, 463-474
 Philippines, 491-500
 Ryukyu, 526
 Solomon Islands, 453-461
 Sulawesi, 367-378
 Sumatra, 317-330
 Tonga-Kermadec, 417-423
- Isostasy
 isostatic equilibrium (*see* 41)
- Italy, 61-84, 96, 97, 99, 101-106, 183
- Ivrea zone, 87, 104, 108, 115
- Izu-Mariana arc, 523, 545, 546
- Japan, 355, 513-552, 766, 772, 776, 777, 781, 783-785

- Japan—*contd.*
 rotation of NE. Japan, 518, 523
- Java, 317, 318, 374, 376, 377, 476
- Java Sea, 302
- Jura Mountains, 85–108
- Jura-type folds, 47, 57, 238
- Karakorum Mountains 255–266, 268, 759, 762,
 776, 777, 779, 784, 785
- Kashmir, 255–266, 268, 270
- Kermadec, 417–423, 784, 785
- Kurile arc, 514, 526
- Laramide orogeny, 585, 592, 602, 603, 629, 711,
 712, 715, 716, 718, 721, 727, 728, 730
- Laurasia, 280, 281, 309, 783
- Lesser Antilles, 628, 642, 645, 663–671, 768, 774,
 783–785
- Lewis Carroll, 92
- Lherzolites, 10
- Lignite, 72, 76, 178, 190, 251, 313, 329, 336, 341,
 479, 483, 530, 549, 635, 679, 680, 778–781
- Linear Structures, in each zone (*see* 359–362)
- Macquarie–Balleny Ridge, 381–386, 771, 783–785
- Malaya, 302–311, 322, 323, 340, 357
- Malayan orogen (*see* Thai–Malay orogen)
- Manganese, 250
- Manganese nodules, 354, 357
- Manganiferous sediments, 496, 497
- Mantle, low velocity layer (*see* 62–65)
- Mantle-derived rocks in orogens, 10, 103, 170,
 272, 469, 489, 645, 783
- Median Mass, 220, 221, 237
- Megatectonics (*see* 119–125)
- Metamorphism
 absence of, in Burma, 288
 Abukuma type, 10
 Barrovian type, 602, 618
 in each zone (*see* 335–342)
 in Hellenides, 166
 maps of metamorphic features, 10, 32, 388
 metamorphic isograds, 10, 15, 31, 95, 97, 102,
 123
 metamorphic zones, definition, 789
 multi-phase metamorphism, 31, 32, 528, 577,
 621
 paired metamorphic belts, 522, 526, 546, 772
 phase of metamorphism, definition, 789
 in Pyrenees, 10
 high-T low-P type, 390, 403, 506, 507, 513,
 519, 522, 526, 533, 772
 low-T high-P type, 506, 507, 513, 519, 522,
 526, 535, 772
- Mid ocean ridges, 382, 383
 Indian–Antarctic, 381
 Pacific–Antarctic, 381, 387, 403–405
- Miogeosynclinal sequences, 47, 64–65, 68–70, 76,
 77, 79, 85, 89, 91, 127, 132, 133, 136,
 199, 202, 205, 301, 304–309, 313–314, 323,
 334, 338, 340, 341, 345, 388, 400, 401, 475,
 476, 479–489, 505, 506, 592, 595, 599, 601,
 602, 625, 629, 630–632, 705, 709, 712, 713,
 730, 731, 733, 738, 739, 741
- Mobility definition, 789
 initiation of mobility (*see* 87–89)
 phases of mobility (*see* 91–95)
- Mohorovičić discontinuity (*see* 57–61)
 contour map of, 259
- Morocco (*see* Rif Mountains)
- Mountain building, (*see* Orogeny)
- Mud volcanoes, 236, 243, 249, 676
- Mylonite, 89, 149, 150, 152, 163, 177, 189, 216,
 269, 304, 336, 371, 395, 396, 403, 408, 409,
 518, 533, 534, 628, 687
- Nappes, 3, 23, 25–31, 37, 41, 42, 44, 50–58, 71, 75,
 77, 85, 89, 92–103, 127–129, 132, 134–138,
 140–146, 148, 151, 152, 164, 177, 182, 266,
 271, 276, 290, 308, 327, 338, 390, 400, 401,
 403, 450, 502, 504–506, 522, 631, 659, 759,
 771, 777
 nappes de glissement, 30
 nappes du charriage du second genre, 30
 moving slope ahead of nappe, 50
 gliding nappes, 8, 45, 62, 70, 404, 445, 447
 décollement nappes, 95, 96, 99–100
- Natural gas, 241, 246, 251
- New Caledonia, 387, 403–405, 433, 435, 445–
 452, 764, 771, 780
- New Guinea, 355, 357, 358, 376, 427, 453, 463–
 474, 476, 484, 771, 780, 783–785
- New Hebrides, 433–443, 451, 455, 476, 764, 771,
 780, 783–785
- New Zealand, 381–385, 387–416, 448, 451, 464,
 764, 771, 776, 777, 780, 782–785
- Nicobar Islands, 281, 291, 301, 302, 309
- Norfolk Basin, 405
- Oceanic crust
 sequences in orogenic belts, 159, 170, 263, 384,
 455, 469, 555, 645, 783
- Oceanic Trenches
 Aleutian, 556–558, 563, 783
 Banda Arcs, 362
 Cayman, 625, 626, 629, 630, 642
 Dominican, 644, 645, 659
 Izu–Bonin, 546
- Oceanic Trenches—*contd.*
 Japan, 543, 545, 551, 783
 Java, 329, 355, 783
 Kermadec, 417, 420, 783
 Kuriles, 783
 Macquarie–Balleny, 383
 Manila, 491, 493, 496, 498, 499
 Mariana, 546, 783
 Mindanao, 491, 783
 New Britain, 467, 472, 473
 New Hebrides, 437, 439
 Peru–Chile, 733, 736, 739, 740
 Philippine, 496, 499
 Puerto Rico, 639, 642–645, 647, 648
 Solomon Islands, 453
 Sumatra, 317, 318, 329, 330
 Tonga, 417, 420–422, 783
- Oil basin, 321
- Oil deposits, Cuba, 631
- Oil fields
 Iran, 203
 Sumatra, 322
- Oil reservoirs, 545
- Oil shale, 584
- Oil wells, 81, 239, 251, 675, 680
- Olistostromes, 8, 61, 63, 72, 73, 76, 77, 79, 190,
 272, 274, 404, 504, 506, 507, 510, 729, 730
- Oman, 200, 201, 203, 204
- Ophiolite sequences and ophiolite rocks, 68, 90,
 102, 109, 154, 159, 163, 166, 169, 171, 181,
 191, 193–195, 208, 221, 222, 235, 240, 246,
 248, 249, 267, 271, 279, 283–285, 288, 292–
 296, 307, 308, 333, 336, 342–345, 374–376,
 393, 475, 491, 496, 511, 535, 537, 559, 565,
 635, 636, 759–773, 778–781
 in allochthonous complexes, 61, 63, 71–73, 76,
 77, 79, 80, 161, 162, 170, 175–178, 272,
 274, 469, 583
 classical ophiolite sequence, 470
 as examples of former oceanic crust and upper
 mantle, 159, 170, 469, 783, 784
 extrusive types, 85, 89, 167, 187, 369, 372,
 404, 553
 with extrusive and intrusive components, 101,
 401
 intrusive types, 311, 312, 400
 maps of occurrences, 188, 236, 260, 334, 370, 373
 marking continental junctions, 263
 olistostromal examples, 72, 73, 76, 77, 79, 80,
 272, 274, 506, 510
 represented in pebbles, 143, 173
- Ore deposits, 528, 606, 751
- Oroclinal bending, 568
- Orocline, 239, 706

- Orogenic 'phases'
 assigning ages to, 758
 continuity of orogeny in Japan, 516
 parallelism in NE. Japan, 546
 phases of mobility (*see* ⁹¹⁻⁹⁵)
 as 'pulses' of mobility, 641
 synchronicity, 775
 tables of events, 760-769
- Orogens
 definition, 789
 heights (*see* ³⁰⁻³²)
 shapes in plan (*see* ¹⁶⁻²¹)
 surface shapes in elevations (*see* ³⁰⁻³⁶)
 trends (*see* ²²⁻²⁴)
 types of, 784-785
- Orogeny
 definition, 789
 basement rocks in (*see* ⁷⁶⁻⁸⁰)
 oldest rocks deformed for first time (*see* ⁸¹)
 oldest undeformed rocks, (*see* ⁸⁵)
 patterns of events in time 775-776
 subdivisions of time span, 775
 youngest deformed rocks (*see* ⁸³)
- Pakistan, 205, 235-253, 260, 270, 759, 762
- Palaeogeographical maps
 Burma, 286-287
 Carpathians, 133
 E. Atlas, 52
 Japan, 522
 N. Apennines, 65, 66-67
 Pyrenees, 9
 Trinidad, 674
 Venezuela, 688
 Zagros Mountains, 203
- Palaeomagnetism
 data (*see* ⁶⁷)
 offset along Alpine belt, 89
 rotation of Spain, 3, 6, 11
 rotation of Carpathians, 132
 rotation of Corsica, 70
- Palinspastic reconstructions (*see* ¹³⁰)
 profiles
 Central Alps, 90
 E. Atlas, 54
 Hellenides, 167
 Pyrenees, 7
 Venezuela, 690
 W. Canada, 620
 maps, 52, 114
- Pamir, 237, 239, 245, 255, 257, 258, 260, 262
- Pangea, 242
- Papua, 427, 463-474, 476, 484, 765, 771, 776, 780, 782, 783
- Philippine archipelago, 333, 357, 365, 376, 377, 491-500, 507, 765, 772, 776, 777, 780, 784, 785
- Philippine Sea, 491, 501, 526, 776
- Planar structures, in each zone (*see* ³⁵⁹⁻³⁶²)
- Plate margins, 180
- Plate tectonics, 94, 168, 170, 199, 242, 306, 333, 356, 358, 372, 385, 387, 463, 473, 496, 556-558, 568, 629-630, 643, 645, 663, 674, 739, 740, 747, 757, 782, 783
- Po basin, 61, 63, 68, 78, 81-82, 91, 92, 103, 109, 110, 115, 116, 124
- Podolian massif, 128
- Poland, 127-157
- Pontic Mountains, 187, 188, 192-193
- Pre-Cambrian fossils, 218, 578
- Pseudotachylite, 89
- Puerto Rico, 628, 639-661, 768, 774, 775, 777, 781, 784, 785
- Pyrenees, 3-21, 759, 760, 775, 778, 782, 784, 785
- Radiolarian rocks, 55, 79, 97, 103, 127, 132, 135, 136, 141, 143, 145, 146, 147, 151, 153, 164, 166-170, 176, 178, 179, 181, 182, 188, 202, 206, 208, 209, 221, 222, 266, 273, 274, 294-296, 338, 342, 343, 354, 357, 361, 460, 479, 481, 482, 483, 489, 519, 525, 565, 580, 632, 633, 635, 645, 651, 658, 778-781
- Radiometric age determinations
 in Alaska, 572, 573, 574, 575, 577, 578, 580, 581, 583, 586
 Aleutian Arc, 555, 559
 Betic cordilleras, 30, 32
 Bolivia, 734
 Borneo, 338, 343
 Canada, 593, 596, 606, 608, 611, 612, 614, 616-618, 621
 Carpathians, 130, 139, 149, 152, 154
 Central Alps, 89, 92, 95, 97, 101-105
 Chile, 736-737
 Colombia, 708, 709
 Cuba, 627, 636
 E. Alps, 111, 112, 122, 123
 East New Guinea, 466, 471
 Fiji, 426, 427, 429
 Greece, 162, 164, 172, 173, 177
 Himalaya, 268, 276
 Iran, 218, 228, 237, 247, 251
 Karakorum Mountains, 257, 264, 266
 Lesser Antilles, 669
 N. Apennines, 72-74, 77
 New Caledonia, 449
 NE. Japan, 544, 548
 New Hebrides, 439, 441
- Radiometric age determinations—*contd.*
 New Zealand, 400, 403, 407-412
 Philippines, 495
 Puerto Rico, 643, 651, 654, 659
 Rif Mountains, 42-44
 SW. Japan, 517, 519, 526, 528-530, 533, 535
 Sumatra, 320, 325, 327
 Taiwan, 502, 510
 Thailand, 303, 307, 311, 313, 314
 Trinidad, 674, 677
 Venezuela, 686, 693, 695, 697
- Rates of movement (*see* ¹²⁹)
 advance of allochthons, nappes, overthrusts, 50, 68, 91, 165, 354, 355, 598, 599, 689, 777, 782
 crustal extension, 405
 growth of folds, 68, 201, 203, 545
 migration of axes of subsidence, 397, 675, 688
 plate movements, 643, 667
 subsidence/deposition, 68, 161, 165, 219, 320, 354, 355, 467, 481, 689, 750, 776, 778-781
 average rates, 777, 782
 maximum rates, 776
 tectonic shortening, 400, 598, 599
 tilting, 397, 545
 transcurrent faulting, 320, 397, 481, 598, 599, 777, 782
 uplift/erosion, 90, 111, 130, 137, 161, 201, 320, 354, 355, 397, 400, 403, 467, 505, 643, 689, 739, 777, 782
- Rif Mountains, 37-46, 759, 760, 777, 778, 782, 785
- Rift Valley, Taiwan, 510-511
- Rumanian Carpathians, 128, 132, 136, 145
- Ryukyu Islands, 501, 507-508, 514, 526
- Sardinia, 51
- Salt plugs, 53, 58, 121, 200, 210, 204-206, 209-211, 221, 230
- Schistosity, in each zone (*see* ³⁵⁹⁻³⁶²)
- Sea-floor spreading, 11, 168, 170, 385, 387, 403, 404, 405, 421, 496, 592, 599, 629, 646, 667, 740, 750, 751, 757, 782, 783
- Sea of Japan, 543
- Sedimentary data, tabulated for each segment (*see* ⁹⁷⁻¹⁰⁵)
- Sedimentation
 facies (*see* ¹⁰⁰⁻¹⁰⁴)
 maximum thicknesses (*see* ⁹⁸)
 migration of troughs (*see* ¹²⁷)
 sources of sediments (*see* ^{105, 131})
 time spans of pre-, syn- and post-orogenic intervals (*see* ⁹⁷)
 volumes of sediments (*see* ⁹⁹)

- Segment
 overall definition, 789
 (*see introductory section of each article for individual definitions*)
 subdivision into zones (*see* 201)
- Seismic data
 regional seismic data (*see* 50–65)
- Seismicity
 data (*see* 67–71)
 inclined seismic zones, 355, 356, 368, 370, 371, 376, 417, 420, 421, 505, 645, 783
 map of fault plane solutions, 181
 maps showing epicentres
 Afghanistan, 243
 Hellenides, 180
 Himalaya, 270
 Indonesia, 321, 356
 Japan, 520
 Lesser Antilles, 665
 New Hebrides, 435
 New Zealand, 393
 Pyrenees, 6
 profiles of earthquake foci
 Japan, 521
 Lesser Antilles, 666
 Tonga-Lau, 420
- Serpentinite and serpentized peridotite, 175, 273, 311, 312, 402, 404, 407, 438, 440–442, 447–451, 456, 459, 489, 510, 528–530, 534, 536, 537, 551, 577, 609, 629, 637, 645, 647, 648, 657, 658, 693, 696, 699, 710
 slight degree of serpentinization in Papua, 469
- Sicily, 52, 55
- Solomon Islands, 433, 435, 438, 442, 453–461, 463, 476, 765, 771, 777, 780, 783–785
- Solomon Sea, 454, 463, 465, 468, 469, 472
- South China Sea, 307, 323, 333, 491, 496
- South Fiji Basin, 405
- Spain (*see* Pyrenees *and* Betic Cordilleras)
 rotation of, 3, 6, 11
- Sphenochasm, 309
- Spitsbergen, 747–755
- Strain analysis in each zone (*see* 364)
- Stratigraphical ages of orogenic events, 758
- Stratigraphy, stratal columns in each zone (*see* 319–323)
- Subduction zones, 333, 496, 506, 507, 557–559, 630, 663, 740
 fossil examples, 91, 97, 399, 405
- Sulawesi, 33, 349, 355, 367–378, 476, 491, 765
- Sumatra, 302, 309, 317–331, 355, 357, 377, 763, 770, 777, 779, 784, 785
- Sunda orogen, 317–331, 333, 349
- Sunda Shelf, 303, 305, 317, 323, 324, 340, 365
- Switzerland, 85–108
- Syn-sedimentary faulting, 11, 14, 105
- Taphrogeny, 93
- Taiwan, 491, 501–511, 765, 772, 775, 780, 782–785
- Tasman Sea, 387, 404, 405, 468
- Taurus Mountains, 160, 161, 187, 188, 192, 194–5
- Tectonic fragments, 26–27, 55, 57, 71, 81, 120, 141, 142, 482, 679
- Tectonic maps
 Betics, 24
 Central Alps and Jura, 86
 Karakorum, 260
 N. Apennines, 69
 Rif Mountains, 39
- Tectonic mélanges, 114, 122, 123, 176, 507, 558, 696
- Tectonic shortening
 Alaska, 565, 573, 574, 580, 581, 582, 583
 Alborz, 219, 224, 226, 228, 231
 Betic cordilleras, 23
 Burma, 292
 Carpathians, 136, 148
 Central Spitsbergen Alps, 89, 91, 96
 E. Alps, 119
 Hellenides, 180, 183
 Himalaya, 267, 270–272
 Japan, 529
 N. Apennines, 74
 New Zealand, 397, 400, 406, 408, 409, 413
 Pyrenees, 10–11, 16, 27
 Rif, 42, 44
 Spitsbergen, 754
 Trinidad, 680
 Venezuela, 693, 698, 699, 700
 W. Canada, 598, 612, 620, 622
 Zagros Mountains, 203, 206, 208, 210, 216
- Tectonics
 chorotectonics, 51
 sarotectonics, 51
- Tethyan faunal province, 203
- Tethyan Torsion system, 453
- Tethys Ocean, 61, 242, 263, 266, 271–273, 285, 286, 302, 307, 356, 782, 783
- Tethys twist, 91, 114
- Thailand, 280, 301–315, 323, 763, 770, 776, 777, 779, 784, 785
- Thai-Malay orogen, 301–315, 317, 323, 333
- Tibet, 241, 255, 266, 270, 272, 274
- Tien Shan, 255, 258
- Tin deposits, 302, 304, 306, 307
- Tonga Kermadec arc, 385, 417–423, 433, 764, 771
- Transcaucasia, 187, 190, 192
- Transform faults, 93, 159, 306, 385, 403, 405, 496, 601, 603, 683, 751, 783
- Transylvanian Basin, 128
- Trinidad, 663, 664, 671–682, 685–687, 694, 768, 774, 775, 777, 781, 782, 784, 785
- Turkey, 161, 187–197, 205, 237, 759, 761, 770, 775, 777, 778, 784, 785
- Ukraine, 138, 145
- Ultramafic rocks (*see also* Ophiolite *and* Serpentinite), 241, 273–275, 388, 398, 399, 402, 404, 406–410, 436–438, 441, 442, 457, 459, 463, 472, 482, 486, 488, 496, 526, 527, 529, 534–536, 549, 551, 572, 601, 604, 609, 611, 613, 615, 625, 629–637, 639, 642, 647, 648, 657, 658, 696, 760–771
 ages of, summary, 784
 allochthonous, 79, 170, 272, 446–451, 465–468
 boulders in strata, 99
 chromite deposits, 250
 exotic blocks, 272
 extrusive rocks, 122, 154, 208, 327, 361, 458, 460, 668
 intrusive bodies, 10, 42, 152, 235, 246, 249, 250, 312, 384, 390, 401, 491, 493, 497–499, 522, 528, 530, 532, 565, 575, 577, 580, 581, 614, 617, 693, 695, 697, 699, 716
 katametamorphic rocks, 103
 mantle derived, 170, 272, 469, 489, 645
 maps of occurrences, 39, 174, 440, 454, 456, 594, 626
 oceanic crust, ultramafic rocks as remains of, 159, 170, 469, 645
 ophiolite types, 79, 101, 164, 166, 167, 169, 170, 175, 178, 191–195, 240, 272, 311, 312, 393, 401, 469, 471, 510, 537
 tectonically emplaced, 30, 120, 272, 489
 world summary, 771–774
- Unconformities (*see* 108)
- Uplift of mountains
 Afghanistan, 242
 Banda Arcs, 355, 358
 Betics, 27, 28
 Carpathians, 129, 136–137
 Central Alps, 91, 92
 E. Alps, 115, 116
 E. Atlas, 51
 Ecuador, 731
 Himalaya, 268, 269
 Karakorum, 262, 263
 N. Apennines, 70
 Pyrenees, 9, 10
 Sumatra, 320

- Uplift of mountains—*contd.*
 Zagros Mountains, 199, 203, 206
- Variscan orogeny, 127, 150, 151, 506, 519, 526
 Venezuela, 628, 676, 653–703, 713, 714
 Venezuelan Andes, 481, 663, 671, 674, 705, 768,
 774, 775, 777, 781, 782, 784, 785
- Vertical movements (*see* ¹²⁸)
- Vienna Basin, 128
 Virgin Islands, 639–661
- Volcanoes
 maps showing modern volcanoes
 Afghanistan, 236, 243
 Alaska, 571
 Aleutian Arc, 554
 Banda Arcs, 353
 Carpathians, 128
 Celebes, 370
- Ecuador, 726
 E. Indies, 356
 Greece, 160
 Iran, 221
 N. Apennines, 62
 New Guinea, 464, 467
 New Hebrides, 434, 440
 New Zealand, 389
 Philippines, 492
 Solomon Islands, 454, 456
 Sumatra, 328
 Turkey, 188
 submarine volcanoes, 419, 422, 644, 660
- Western Canada, 578, 591–623, 767, 773, 776,
 777, 781, 782, 784, 785
- West Irian, 349, 365, 475–490, 491, 765, 771,
 777, 780, 783–785
- Yugoslavia, 161, 162, 172, 174, 175, 178, 180,
 182, 184
- Yunnan-Malayan orogen (*see* Thai-Malay
 orogen)
- Zagros Mountains, 187, 199–211, 213, 216, 237,
 247, 759, 762, 770, 775, 777, 779, 782, 784,
 785
- Zones
 definition of individual zones (*see introductory
 section of each article*)
 list of zones in each segment (*see* ²⁰¹)
 margins of zones (*see* ^{302–307})
 outcrop areas of rock types in each zone (*see*
^{308–311})
 overall definition, 789
- Zwischengebirge, 603