

Index

Page numbers in *italics* refer to Figures. Page numbers in **bold** refer to Tables.

- aa lava 170, 172
- Abbabis Complex 109, *110*, 111, 112, 113, 116, 120, 121, 128, 130, 132
- Accra Group 142
- Aden Gulf spreading centre *344*, 346
- Adi Hageray block *86*, *87*, *103*
- Adi Nebrid block *86*, *87*, *88*, *101*, *102*, *103*
- Adwa block *86*, *87*
- Afar Depression 346
- Afar mantle plume 253, 265, 278, 346
- Afar volcanic centre 1, 2
- African Plume Generation Zone 243–247
 - superswell and superplume 345, 352
- Airy isostasy 345, 350, 351
- Al Kufra Basin *333*, *334*, *347*
- Alborz Terrane 144
- Alemzi Formation 170, **173**, **174**, 176, *178*, 185
- Algeria
 - role in Gondwana 141–142, 155
 - volcanism 265, 266
- alternating field (AF) demagnetization 12, *15*, *16*, *19*, 198, *214*, 218
- Amirante Ridge 245, 247
- Anaboriana Belt 51, **53**, **54**, 58, 64
- Angavo–Ifanadiana Shear Zone 56
- anisotropy of magnetic susceptibility (AMS)
 - Central Steep Zone **89**, 91–93
 - Tarfaya Basin 212, 216–217, 223
- anisotropy of seismic signal 345, 357–358
 - eastern Africa 358–360
 - northern, central, western Africa 360
 - southern Africa 360
- Antananarivo Craton 51, 52, 53, **54**, 56, 57, 63, 64
- Antarctica, role in Gondwana 145, 149
- Anti-Atlas Mountains 140, 152
- Anti-Atlas orogen 2
- Antongil Craton 51, 52, **53**, **54**, 55, 64
- apatite fission track analysis (AFTA) 289, 344
- apparent polar wander paths 22, *23*, *148*
- Arabian Plate 143, 149
- Arabian Shield 2
- Arabian–Nubian Shield (ANS) 85–86
- Arandis Formation 109, *110*
- Arcadia Inlier *110*, 112
- Archaean
 - Madagascar 51–58, 59–61
 - Rehoboth Province 43
- Argana Basin (Morocco)
 - Central Atlantic Magmatic Province (CAMP) 168
 - basalt flow study
 - emplacement mechanism 185–186
 - facies model 183–185
 - field observations 176–183
 - flood basalts compared 187–188
 - geochemistry **173**, **174**, *175*
 - methods 170–176
 - basalt magnetostratigraphy
 - methods 198
 - results 200
 - results discussed 206–207
 - red beds magnetostratigraphy
 - methods 198
 - results 198, 200
 - results discussed 201–206
 - geodynamics 168–169
 - geological setting 169–170, 196–197
 - Armorica, role in peri-Gondwana 146, 149
 - Ashwal, Lewis David 5
 - Atlas Mountains 140, *344*, 347
 - Atlas orogen 2
 - Autseib Fault *108*
 - Avalonia, role in peri-Gondwana 145, 151
 - Azeho granite 87
 - Bajgan Complex 144
 - Bancroft Subgroup 70, 72
 - basalt lava flows
 - classification 170–176
 - see also under* Egypt *also* Argana Basin; Central Atlantic Magmatic Province (CAMP); continental flood basalts; Yatta lava flow
 - Baviaanskloof Formation 143
 - Beaufort Group 143
 - Bemarivo Belt 51, 52, **53**, **54**, 58
 - Benue Trough 350, 352
 - Betsimisaraka Suture 51
 - Bie Dome *344*, 346, 347
 - Bigoudine Formation 170, *171*, 182, 197–198
 - red bed magnetostratigraphy
 - methods 198
 - results 198, 200
 - results discussed 201–206
 - Billstein Formation 30, 32
 - zircon age determination 34, *41*, 42
 - Boda Event 152
 - Bokkeveld Group 143
 - Bouguer anomaly 334, 335
 - Bové Basin 142
 - bulk susceptibility **14**, 16
 - Burke, Kevin Charles Antony 4–5
 - Bushveld Complex 9, 12, *13*, 28, 351
 - palaeomagnetism studies for Palaeoproterozoic 16–20, 20–22
 - pole positions 22, 23
 - Calcaire Rose Formation 72
 - Cameroon volcanic line 333, 334, *344*, 347, 352, 357, 360
 - Cape Fold Belt 149, 350
 - Cape Orogeny 143
 - Capricorn orogen 9
 - Carlsberg Ridge *230*, 231, 243
 - Cedarberg Formation 143
 - Cenozoic *see* Neogene; Palaeogene
 - Central African Copperbelt 69

- Central Atlantic Magmatic Province (CAMP) 168–169, 195, 255
see also Argana Basin (Morocco)
- Central Steep Zone (CSZ) *see under* Ethiopia
- Chad, volcanism 266
- Chad Basin 333, 334
- Chad lineament 335, 336, 337, 338, 339
- characteristic remanent magnetization (ChRM) 200, 213, 218, 219, 222
- Chila block 86, 87, 101, 102, 103
- Chila granite 87
- climate
 influence of East African Plateau 287
 Neogene of Mount Kenya 303, 316–317
- climatic cyclicity 198, 212
- Columbia 9, 10
- Congo Basin 344, 346, 347, 350
- Congo Craton 1, 2, 28, 69, 70, 88, 107, 108, 109, 131, 132, 332, 333, 350, 352
see also Lufilian Arc
- continental flood basalts (CFB) 168, 195, 253, 255
 Ethiopian volcanic plateau 254
 lava isotope analysis
 methods 256
 results 256–257
 results discussed 258–261
see also Argana Basin
- Cretaceous *see* Tarfaya Basin; Seychelles
- crustal thicknesses 345, 349–350
 eastern Africa 350
 northern, central, western Africa 352
 southern Africa 350–352
- Curie temperature 12, 16, 18, 20, 214
- Dafur volcanic centre 1, 2
- Dahomeyide orogen and Dahomeyides 2, 333, 334
- Dahro Tekli belt 87, 104
- Damara Orogen 2, 28, 107, 108, 109, 132
- Central Zone
 deformation and metamorphism 111–112
 D1 112–113
 D2 113–116
 D3 116–119
 significance 123, 125, 128–129
 timing 129–132
 zircon dating
 methods of analysis 121, 123
 results 122, 123, 124, 126, 127
 geological setting 109–111
 intrusions 119–121
- Damaran Supergroup
 Nosib Group 109, 110
 Swakop Group 109, 110
- Deccan Traps 231
 age 231–232
- Democratic Republic of Congo, role in Gondwana 143
- Deset granite 87
- Dipeta Formation 72, 77, 80, 81
- Drakensburg Escarpment 344, 346
- Dwyka Formation 44
- Dwyka Group 143, 157
- dyke swarms
 Bushveld 12, 16–17, 20–22
 Phalaborwa 11, 16, 17, 20
- East African Plateau 286, 289, 295
 uplift model 296–297
- East African Rift System (EARS) 265, 266, 285, 289, 303, 344, 346, 354, 358, 359
- East African–Antarctic Orogenic Belt (EAAO) 49, 50
- Ecce Group 143
- eccentricity cycles 198, 212
- Egypt
 geodynamic setting 267
 Palaeogene–Neogene volcanism 265, 266
 basalt geochemistry
 methods of analysis 267–268
 results
 major and trace elements 269–273
 petrography 268–269
 radio-isotopes 273–278
 results discussed 278–279
- Elgon, Mount 303
- Elim Formation 29, 30, 31
- Eritrea, glaciation 156
- erosion rates, Mount Kenya 303
- Etendeka lavas 255
- Ethiopia
 Central Steep Zone (CSZ) 85, 86, 87
 tectonic evolution
 methods of analysis 88
 mineral chemistry 94–96
 results
 geochemistry 93–94
 magnetic fabric 91–93
 petrofabric 88, 90–91
 results discussed 101–104
 results thermometry 96–101
 continental flood basalt (CFB) province
 volcanic plateau
 lava isotope analysis
 methods 256
 results 256–257
 results discussed 258–261
 glaciation 156
 mantle velocity 353
 Moho depth 364–365
 northern basement geology 86–88
 volcanic plateau 253, 254
 continental flood basalt province (CFB)
 255–256
- Ethiopian Plateau 286, 345, 346, 354
- Ethiopian Rift 265
- Etusis Formation 109, 110, 111
- Falkland Islands, role in Gondwana 145, 149, 156
- Florida, role in peri-Gondwana 146
- flow lobes, classification 176
- Fungurume foreland basin 69, 80
- Fungurume Group 69
 outcrops
 Kamoya–Kambove 74–77
 Shituru 72–74
 Tenke–Fungurume 77–80
 stratigraphic significance 81
 tectonosedimentary history 80–81
- Gamsberg Suite 30, 31, 45
- Gaub Valley Formation 29, 30, 31

- geochemistry *see under* Egypt
 geochronology *see* isotope analysis *also* zircon age
 Ghademes Basin 142, 347
 Ghana, Lower Palaeozoic 142, 156
 Ghaub Formation 109, 110
 glaciation
 Carboniferous 156
 Hirnantian 152
 Mount Kenya 303–304
 Goas Intrusive Suite 111, 130, 132
 Gondwana
 break-up 255, 346
 component terranes and cratons 138, 139
 Algeria and Tunisia 141–142
 Antarctica 145
 Arabia 143–144
 central and SW Africa 143
 E Africa and Madagascar 142–143
 Indian Peninsula 144
 Libya and Niger 142
 Morocco and the Meseta 140–141
 NE Africa 142
 S Africa 143
 S America and Falklands 144–145
 W Africa 142
 formation 1, 49, 88, 108
 geological history by period 148–149
 Cambrian 149–151
 Carboniferous 156–158
 Devonian 153, 154–156
 Ordovician 151–152
 Permian 158–161
 Precambrian 149
 Silurian 152–154
 see also peri-Gondwana
 Gop Rift 230, 231, 243
 Grand Conglomerat 69, 70, 71, 72, 73
 gravity anomaly
 defined 329
 East African Plateau 286
 north-central Africa 329, 330, 331, 334–336
 Chad Lineament 336–339
 see also Bouguer anomaly
 gravity signal for mapping *see* mapping
 gravity-gradient field
 north-central Africa 329, 330, 332, 334, 336
 Chad Lineament 336–339
 gravity-gradient tensor *see* Marussi tensor
 Guba Group *see* Nguba Group
 Guinea, Lower Palaeozoic 142, 151
 Günau Terrane 28

 Hoggar Craton 333
 Hoggar Mountains 344, 347
 hot shales 142
 Hun Graben 319, 320, 321

 Iberia, role in peri-Gondwana 145–146, 151
 Ice Age, Hirnantian 152
 Ida Dome 110, 112, 115, 116, 118, 121
 Ikakern Formation 170, 171
 Indian block 88
 Indian Peninsula, role in Gondwana 144, 149
 Iranian Terrane 144

 Irumide orogen 2
 isostasy 345, 349, 350, 351
 isotope analysis and dating
 Egyptian basalts 267–268, 273–278
 Ethiopian lavas 256–261
 Mount Kenya lavas and sediments 308
 Seychelles palaeoposition 232, 233–237
 see also zircon age
 Italy, role in peri-Gondwana 145–146

 Kaapvaal Craton 1, 8, 10, 22, 28, 350, 351, 355, 357, 360
 see also Bushveld Complex; Phalaborwa Complex
 Kaigas glaciation 70
 Kairab Formation 44
 Kakontwe Limestone Formation 71, 72
 Kalahari Craton 1, 2, 88, 107, 108, 109, 131, 132
 Kalule Subgroup 72, 81
 Kamanjab Inlier 108
 Kambove Formation 72, 81
 Kangas Metamorphic Complex 29
 Kaoko Belt 107, 108
 Karibib Formation 109, 110, 111
 Karoo flood basalts 255
 Karroo Supergroup 143, 157, 161
 Katanga Supergroup 69
 stratigraphy 70–72
 see also Fungurume Group
 Katangan megabreccias 69, 81
 Kenya
 mantle velocity 354, 358
 see also Yatta lava flow
 Kenya Dome 347, 350
 Kenya, Mount 301–303
 geological setting 303–304
 palaeosols in interbedded volcanics
 chemistry 311
 methods 304, 306
 results
 mineralogy 311–312
 palaeomagnetism 308
 parent rock weathering 306–307
 particle size distribution 308–311
 SEM 312–315
 stratigraphy 307–308
 results discussed and palaeoclimatic significance 316–317
 Kenya Rift 287–288
 Kenyan Dome 303
 Keraf–Kabus–Sekerr Suture 86
 Kgwebe Formation 32
 Khan Formation 109, 110, 116
 Kheis Province 28
 Khomas Sea 109
 Kitwe Subgroup 70, 72
 Kiubo Subgroup 72, 81
 Klipheuwel Group 143
 Konkiep Group 32, 44
 Konkiep Terrane 28, 44
 Koras Group 32, 44
 Kufra Basin 142
 Kuiseb Formation 109, 110
 Kundelunga Group 70, 72, 75, 81
 Kuunga Orogeny 50, 88

- Landsat imaging 321, 322
 Langberg Formation **31**, 44
 zircon age determination 32–33, 34, 41, 42–43
 large igneous provinces 167–168
 large low shear-wave velocity province (LLSVP) 230, 247
 lava flows *see* volcanic rocks
 Laxmi Basin 230, 231, 243, 244
 Leo Shield 332, 333
 Lesotho, role in Gondwana 143
 Levant Plate 143
 Liberia, Lower Palaeozoic 142
 Libya
 role in Gondwana 142
 Tripolitania tectonics 319–320, 324
 field evidence 321–324
 implications for Mediterranean 324–326
 Landsat remote sensing 321, 322
 volcanism 265, 266
 Likasi Subgroup 72
 Limpopo mobile belt 9, 28, 350, 351, 360
 Lufilian Arc 69, 70, 71, 81
- McLaughlin cycles 198
 Madagascar, role in Gondwana 142–143, 149
 Madagascar (central and north)
 crustal domains
 Archaean 51–58
 Neoproterozoic 58–59
 evolution
 Archaean 59–61
 Neoproterozoic 61–63
 Palaeoproterozoic 61
 summary 63–65
 magnetic susceptibility **14**, 16
 Central Steep Zone **89**, 91–93
 magnetostratigraphy *see* Bigoudine Formation
 Magondi orogen 2
 Mai Kental block 86, 87, 88
 Main Ethiopian Rift 265
 Malagasy Orogeny 50
 Malawi, role in Gondwana 143
 Malvinokaffric Province 156
 Manampotsy Belt 51, **53**, **54**, 58, 60, 64
 mantle velocity 345, 352–353
 eastern Africa 353–355
 northern, central, western Africa 357
 southern Africa 355–357
 mapping with gravity signal
 north-central Africa 329, 330, 332, 334, 336
 Chad Lineament 336–339
 Mareb granite 88
 Marienhof Formation 29, 30, **31**
 Marinoan glaciation 70
 Marussi tensor 329, 330, 332, 334
 Mascarene Basin 245
 Mashonaland Sills 22, 23, 24
 Masora Craton 51, 52, **53**, **54**, 55, 63
 mass extinctions, Triassic 169, 195
 Mauritanide orogen 2
 Meseta, the, role in Gondwana 140–141, 149
 Mesoproterozoic
 Damaran Supergroup 109, 110
 Rehoboth Province 30, 32, 44–45
 Mesozoic *see* Cretaceous; Triassic
- Milankovitch cycles 198, 212
 Mindola Subgroup 72
 Mines Group 72, 77
 Moghrebian Formation 211
 Moho depth
 eastern Africa **363–364**
 Ethiopia **364–365**
 southern Africa **362–363**
 western Africa **363–364**
 Moldanubia, role in peri-Gondwana 146
 Molopo Farms Complex 44
 Monwezi Subgroup 72, 81
 Mooiriver granodiorite 30, **31**
 Morocco
 role in Gondwana 140–141, 149
 see also Argana Basin; Tarfaya Basin
 Mozambique Belt (MB) 86
 Mozambique Ocean 50
 Mufulira Formation 70, 72, 81
 Muombe Subgroup 81
 Murzuq Basin 142, 333, 334
 Mutoshi Formation 72, 80, 81
 Mwashya Subgroup 70, 71, 72, 77, 81
- Nafka Terrane 103, 104
 Nama Group 143
 Namaqua Natal Mobile Belt 350
 Namaqua Natal orogen 2, 28
 Namibia
 role in Gondwana 143
 see also Damara Orogen; Rehoboth Province
 Nankluft Nappe Complex 108
 Natal Group 143
 natural remanent magnetism (NRM) 12
 Argana Basin 198, 200
 Bushveld Complex **14**, 16
 Phalaborwa Complex **14**
 Tarfaya Basin 216, 217–220
 Nauzerus Group 30, **31**, 32, 45
 Neogene *see* Egypt; Ethiopia volcanic plateau;
 Kenya, Mount; Yatta lava flow
 Neoproterozoic
 Gondwana 149
 Katanga Supergroup 69, 70–72
 see also Fungurume Group
 Madagascar 58–59, 61–63
 Saharan Metacraton 338–339
 see also Central Steep Zone
 Neotethys Ocean 161
 Newark Basin (NJ) 197–198, 203
 Nguba Group 70, 72, 81
 Nguba rift basin 69
 Niger, role in Gondwana 142, 152, 154
 Nigeria, schist belt 336
 North Zanilei orogen 2
 Northern Metamorphic Terrain (Eritrea) 86, 88
 Nosib Group 109, 110
 Nubian Shield 2
 Nückopf Formation 30, **31**, 44, 45
- ocean anoxic event 211
 Okahandja Lineament Zone 108
 Okwa Basement Complex 44
 olivine, behaviour in mantle 358, 360

- Omaruru Lineament 108
 Orange River dyke swarm 12
 orbital forcing 196, 198, 212
 Otihorongo Thrust 108
- P-type flow lobes 176
 pahoe-hoe lava 172, 175
 Pakhuis Formation 143
 palaeoclimate *see* climate and climatic cyclicity
 Palaeogene
 Oligocene unconformity 343
 see also Egypt; Seychelles
 palaeogeography of Gondwana
 Cambrian 150
 Carboniferous 158
 Devonian 153, 155
 Ordovician 141
 Permian 159, 160
 Silurian 147
 palaeomagnetism
 Argana Basin 198–207
 Bushveld Complex 14, 16–20, 20–22
 Central Steep Zone 89, 91–93
 Mount Kenya lavas and palaeosols 308
 Phalaborwa Complex 12–16, 20
 reconstructions for Africa 140
 Seychelles 237, 239, 241–242
 Tarfaya Basin
 methods of measurement 213–214
 results 214–221
 results discussed 221–225
 Palaeoproterozoic
 Damaran Supergroup 109, 110
 Kaapvaal Craton *see* Bushveld Complex; Phalaborwa Complex
 Madagascar 61
 Rehoboth Province 29–30, 43–44
 palaeosecular variation (PSV) 198, 220–221, 224–225
 palaeosol studies *see* Kenya, Mount
 Palaeozoic
 Gondwana geological history 148–149
 Cambrian 149–151
 Carboniferous 156–158
 Devonian 153, 154–156
 Ordovician 141, 151–152
 Permian 158–161
 Silurian 147, 152–154
 see also Damaran Orogen; Fungurume Group
 Palmenhorst Dome 110, 112, 114, 117, 129
 Pan African orogeny and orogenic belt 1, 49, 50, 149
 Pangea
 break-up 1, 168, 195, 197, 255
 formation 9, 145, 156, 158, 159, 161
 Paynesville Formation 142
 peri-Gondwana 137
 components
 Armorica 146
 Avalonia 145
 Florida 146
 Iberia and Italy 145–146
 Moldanubia and Saxothuringia 146
 Perunica 146
 Turkey 146
 Perunica, role in peri-Gondwana 146
 Petit Conglomerat 69, 70, 71, 72
 Phalaborwa Complex 9, 10, 11
 palaeomagnetism studies for Palaeoproterozoic 12–16, 17, 19, 20
 pole positions 22, 23
 Piksteel Suite 30, 31
 Pilbara craton (WA) 9, 10
 pillow lava 172
 Plateau Group 70, 72, 81
 Pratt isostasy 345
 precessional cycles 198, 212
 pyroxenites, Phalaborwa 12–16, 17, 20
- Rama granite 87
 red beds *see* Bigoudine Formation
 Red Sea, opening 143
 Red Sea spreading centre 344, 346
 Rehoboth Group 29, 31
 Rehoboth Province 28, 29
 evolution 43–45
 Rehoboth Basement Inlier 27, 108
 Mesoproterozoic 30–32
 Palaeoproterozoic 29–30
 zircon age determination
 methods of analysis 33–34
 results 31, 34, 35–40, 41
 results discussed 34, 42, 43
 sampling 32–33
 Réunion mantle plume 231
 Rheic Ocean 161
 Roan Group 70, 72, 77, 81
 Roches Argilo-Talqueuses (RAT) Group 72, 75, 77, 78
 Rodinia 9, 49, 64, 109
 Rössing Formation 109, 110, 116
 Rotekuppe granite 111, 132
 Rwenzori block 350
- S-type flow lobes 176
 Saharan Metacraton 2, 332, 338, 339
 Saionia Scarp Group 142
 Saldanian Orogeny 149
 Sanand Terrane 144
 Sand River Dykes 23
 Sattima Fault 289
 Saxothuringia, role in peri-Gondwana 146, 149
 seismic studies
 anisotropy 357–358
 eastern Africa 358–360
 northern, central, western Africa 360
 southern Africa 360
 broadband stations 347, 348, 349
 crustal thicknesses 345, 349–350
 eastern Africa 350
 northern, central, western Africa 352
 southern Africa 350–352
 mantle velocity 345, 352–353
 eastern Africa 353–355
 northern, central, western Africa 357
 southern Africa 355–357
 signatures 345
 summary 360–362

- Seychelles 229–230
 palaeoposition study for Cretaceous–Palaeogene
 age determinations 232
 $^{40}\text{Ar}/^{39}\text{Ar}$ 233–237
 U/Pb 237
 palaeomagnetism 237–242
 sampling 232–233
 significance of results
 age 242–243
 plate reconstruction 243–247
 relation to India
 age of Deccan traps 231–232
 island geology 232
 ocean opening 230–231
- Shibta granite 88, 104
 Shiharo block 86, 87, 103
 Shire granite 88, 104
 Shuos Formation 109, 110
 Sierra Leone, Lower Palaeozoic 142
 Sinclair Supergroup 30, 32, 44, 45
 Sirte Basin 142, 321, 347
 SLAMIN terrane 85, 104
 Somali Basin 244, 245
 South Africa
 role in Gondwana 143
 see also Bushveld Complex; Kaapvaal Craton;
 Phalaborwa Complex
 South America, role in Gondwana 144–145, 149
 South Pole 138, 141, 147, 148, 149, 150, 151, 152,
 153, 154, 155, 158, 246
 Southwestern Metamorphic Terrain (Ethiopia) 86
 Stinkbank granite 111, 130
 Sturtian glaciation 70
 Sudan 155, 266
 Suwanee, role in peri-Gondwana 146
 Swakop Group 109, 110
- Table Mountain Group 143
 Tanezzuft Formation 154
 Tanzania, mantle velocity 354, 358
 Tanzania Craton 1, 289, 295, 355, 358
 Taoudeni Basin 142, 332, 333, 347, 350
 Tarfaya coastal basin 211–212
 Turonian palaeomagnetism
 methods of analysis 213–214
 results 214–216
 AMS 216–217
 NMR 217–220
 PSV 220–221
 results discussed 221–225
 Tasguint Formation 170, 173, 174, 176, 178,
 181, 185
 thermal (TH) demagnetization 198, 217
 thermomagnetic analysis (TMA) 12, 14, 16, 18, 20
 thermometry, Central Steep Zone studies 96–101
 Tibesti Mountains 344, 347
 Tibesti volcanic centre 1, 2, 333, 334
 Timezgadiouine Formation 170, 171
 Tindouf Basin 140, 142
 topography and uplift 285, 287–289, 296–297, 343–345
 overview in Africa
 eastern 345–346
 northern, central, western 346–347
 southern 346
 Trans-Saharan Fold Belt 333
 Triassic 169, 195, 197–198
 see also Argana Basin
 Tripolitania *see under* Libya
 Tsaliet Group 87
 Tsaratanana Complex 51, 52, 54, 56, 58, 64
 Tunisia, role in Gondwana 141–142
 Turkana Depression 346, 350, 355
 Turkana volcanism 265
 Turkey, role in Gondwana 146, 149
- Ubendian Belt 350
 unconformity, Oligocene 343
 uplift *see* topography and uplift
- Vaalbara 9, 10
 Van Houten cycles 198
 velocity measurement *see* mantle velocity
 volcanic rocks
 see also Argana Basin; basalt lava flows; Central
 Atlantic Magmatic Province (CAMP);
 continental flood basalts; Egypt;
 Kenya, Mount; Yatta lava flow
- Vredevort Impact 22, 23
- Waterberg Group 23, 24
 Weener Igneous Complex 30, 31
 West African Craton 1, 2, 332, 350
 west and central African Rift System (WCARS) 333,
 334, 336
- Yatta lava flow 289–291
 modelling emplacement
 methods 291–293
 results 293–295
 results interpreted 295–296
 plateau uplift theory 296–297
- Zager belt 86, 87, 104
 Zagros Belt, role in Gondwana 144, 161
 Zalla Graben 319, 320, 321
 Zambezi orogen 2
 Zambia, role in Gondwana 143
 Zimbabwe, role in Gondwana 143
 Zimbabwe craton 9, 28, 360
 zircon age determinations
 Damara Orogen
 methods of analysis 121, 123
 results 122, 123, 124, 126, 127
 Rehoboth Basement Inlier
 methods of analysis 33–34
 results 31, 34, 35–40, 41
 results discussed 34, 42–43
 sampling 32–33