

Index

- Acadian Orogeny, 198
accommodation space
 and accumulation rates, 104
 condensed sections, 81
 and cyclothems, 69
 depositional response, 267
 ooid shoals, 66
 overprinting, 71
 and oxygen conditions, 82
acritarchs, 206
Agat, 150, 159–61
aggradation
 Kimmeridge Clay, 83
 Palaeocene, 223
 shelf margins, 37
 tidal flats, 71
albani Zone, 109, 115, 118, 123, 137
algaenans, 90
Alisocysta margarita Zone, 213–14, 220
allocycles, 72
Allt Goibhre Formation, 262, 264
Alpine tectonics, 224
Alum Shales, 239
Amazon Fan, 159
ammonites, 41–2, 48, 56, 109, 178
 biostratigraphy, 181, 231
amorphous organic matter, 77, 89–90
Anglo-Paris Basin, 218
anguiformis Zone, 131, 133, 139
angulata Zone, 244
anoxia, 81–2, 218
 and uranium, 235
apatite, 100–1, 103
Apectodinium hyperacanthum Zone, 213–14, 218, 220
aplanatum Zone, 254
Appin Group, 259, 261–2, 266–7
Ardair Formation, 262, 267
arid regimes, 78
assemblage zones, Turonian, 181
Atlantic Ocean, 218
Atlantic spreading centre, 48
Auchivarie Psammite Formation, 262, 264, 266–7
autissiodorus Zone, 85
autocycling, 32, 55, 72
Avalonia, 197, 201, 204–5

back-barrier deposits, 66, 68, 71
backstripping, 205
Bagshot Beds, 211
Balder Formation, 167, 221, 223, 225
Ballachulish Limestone, 262, 267
Ballachulish subgroup, 261
Ballard Cliff Member, 180
Balmoral sandstone, 220, 225
Baltica, 201
base-level falls, 25–6, 29
basin-floor fans, 145–6, 169
 Faeroe Basin, 154
 methodology, 150
basins, anoxic, 76
Beachy Head, Turonian succession, 179

bedforms
 migration, 44
 wave-modified, 52
Beinn Iarunn Quartzite, 262, 264
Belemnite Bed, 238, 244–5, 251
Belgium, 213
berthierine, 98–100
Binnein Quartzite, 266
biostratigraphic zones
 Kimmeridge Clay, 87
 Portlandian, 111
 Turonian, 181, 183
biostratigraphical control, 2
biostratigraphical gaps, 111, 113
bioturbation, 70, 91, 131
Birnbeck Limestone Formation, 67, 69–70
Bituminous Shales, 84, 238, 239
black shales, 77, 80, 82
Black Ven Marls, 244, 248
Blea Wyke Sandstone Formation, 239, 248
Blue Lias, 82, 244–5, 248
Blyth–Acklington dyke, 225
bone-beds, 98
 environments, 103
 geochemistry, 101
bottom currents, 150, 159
bottom water, volume, 82–3
Boulonnais, 83, 85
brachiopods, 206
Branscombe Hardground, 193
Breathitt Group, 36
British Tertiary Igneous Province, 224–6
Bronnant Fault, 205
Brunachan Psammite Formation, 264
bucklandi Zone, 244
buoyant lift, 150
burial efficiency, 81
burrows
 Chalk, 184
 Red Sands, 46

calcareous nodules, 123
Calcareous Shales, 235, 248
calcsols, 35
calcite, black, 118
calcrete, 70
Calne Sands Formation, 60
Camptonectes lamellosus, 123, 131
carbon burial, 79
carbon flux, 81–2
carbon isotopes
 and sedimentation rates, 127
 in stratigraphy, 184, 186
carbonaceous clay, 51
carbonate cycles, 3
carbonate ramp successions, 66–7, 113, 137
Carboniferous, cycles, 35
Carstone Formation, 48
Castell Coch Formation, 67
Castissent Sandstone, 35
Caswell Bay Mudstone, 68

- cements, 57, 100–1, 115
 Central Graben, 218, 223
 Cerig Formation, 202
 Chalk Rock, 177, 187
 chamosite, 98–9
 channel avulsion, 31, 35
 channel complexes, multistorey, 31, 54
 channel deposits
 Welsh Basin, 202
 Woburn Sands, 4^c
 channel incision, 25
 channel levee complexes, 146, 159, 170–1
 channel stacking, 34
 channel switching, 55
 Cheltenham Limestone, 70–2
 chert
 Cherty Beds, 127, 129–31, 133, 138
 lag deposits, 118, 123
 tabular, 129–30
 China, 201
 chlorite, 246
Chondrites, 70, 98
 chronosequences, 63, 65–6, 71
 chronostratigraphy, Lower Cretaceous, 42
 Cimmerian unconformity, 48
 Clachaig Formation, 274, 277
 Claerwen Fault, 205
 clasts, rafted, 149
 clay drapes, 49, 51
 paired, 53
 clay minerals, 232
 Cleveland basin, 83, 90
 Cleveland Dyke, 225–6
 Cleveland Ironstone Formation, 238, 248
 climate
 arid, 78
 ‘hothouse’, 31
 ‘icehouse’, 32, 35
 and incision, 26
 and palaeoproductivity, 82, 89
 variation, 251
 coals, southern North Sea, 225
 coccoliths, 86
 Coire nan Laogh Formation, 262, 267
Collignoniceris woolgari Zone, 177, 183, 187, 189, 192
 Colorado River, incision, 26
 compaction, differential, 169, 171
 composite sequences, 212, 214
 condensation surfaces, 244
 condensed facies, 77
 condensed sections
 basin centres, 76
 bone-beds in, 98
 organic sediments in, 75, 81, 86
 conglomerates, extraformational, 60, 215
 continental collision, 204
 continental facies, 221
Conulus, 185
 Creag Meagaidh Formation, 262, 267
cristatum Subzone, 58
 Cromarty lowstand, 222
 crustal extension, 205
 crustal stress, 222, 226
 current winnowing, 185
 Cwmere Formation, 202
 cyclicity
 minor, 71
 redox, 82–3, 88, 92
 cyclostratigraphy, Turonian, 184
 cyclothems, 63–4, 71
cymodoce Zone, 89
 Dalradian Supergroup, 261
 Darwin complex, 225
davoei Zone, 259
 debris flows, 147, 170
 Faeroe Basin, 158
 Frigg field, 161
 sandy, 150
 Storegga Slide, 161
 debrites, 205
 decalcification, 218
 decollements, 158
 dedolomitization, 118
 deep marine sequences, 4
 deltas, progradation, 223
denotatus Zone, 254
 density, current-flows, 148
dentatus Zone, 43, 58
 depocentres, 263
 depositional systems, 206
 Derwenlas Formation, 202
 diagenesis
 oxic, 104
 suboxic, 101, 104
 diffusion, linear, 28
 dinoflagellates, 213, 218
Diplocraterion, 98
 discharge rates, variation in, 27
Discoaster microradiatus, 218
 dispersive pressure, 150
 distal facies, 77, 82
 Dogger sandstone, 239
 dolomites, Portlandian, 118, 124, 127
 dolomitization, 69, 127
 Dornoch Mudstone, 223
 downlap, 146, 152, 159, 169
 dune migration, 34, 44, 54
 dysoxic-anoxic facies, 77, 80
 earthquakes, 161
 East Greenland–Faeroes province, 226
 East Shetland Platform, 165
 Eastern England Shelf, 83, 89
Echinocorys, 185
 echinoids, 185
 Eilde Flags, 274–6
 Ekofisk Formation, 224
elegans Zone, 85, 88, 91
Eocallista, 123
 equilibrium profiles, 11
 Eriboll Sandstone, 277
 Erlend complex, 225
 erodibility, effects of, 30
 erosion, Palaeocene, 223
 erosion distance See incision distance
 erosional surfaces

- Chalk, 185
 Purbeck Limestone, 135
 Red Sands, 46–7
 Silver Sands, 47
 Woburn Sands, 44–5
 estuarine complexes, 3
 multistorey, 51
 estuarine deposition, Woburn Sands, 44
 estuary mouth deposits, 54
 eudoxus Zone, 83, 85, 90–1
 eustasy
 importance of, 2
 in modelling, 9
 Turonian, 177
 evaporation rates, 139
 evaporites, 127, 136, 139

 facies belts, migration of, 231
 facies cycles, 220, 222–3
 facies trends, 2
 Faeroe Basin, 150, 152–3, 159
Fagesia catinus Zone, 181, 192
falciferum Zone, 238, 248
 faulting
 Portlandian, 109, 137
 Welsh Basin, 202, 205
 faunicycles, 135–6, 139
Filograna avita, 180, 187
fittoni Zone, 113
 flexural response, 13
 flint, 181
 flooding surfaces
 bone-bed formation, 104
 Cheltenham Limestone, 70
 regional, 58
 fluidal flows, 172
 fluvial erosion, 18–19
 fluvial profiles, 11–12, 17–18
 Fognam Farm Hardground, 190–1
 Folkestone Beds Formation, 48
 footwall fans, 277
 foraminifera, 185, 216, 218, 244
 Fort William Unconformity, 266–7
 Forth field, 168
 Forties Sandstone, 220–1, 223–4
 forward modelling, 3, 9
 fossil wood, 49
 Frigg field, 150, 161
 Frodingham Ironstone, 100

 gamma-ray logs
 Agat area, 159–60
 Dorset, 247–53
 Faeroe Basin, 155–7
 Frigg area, 163–4
 Germany, 246
 Gryphon Field, 166
 model, 171
 Portugal, 260–1
 Yorkshire, 234, 236–7
 gamma-ray spectrometry, 231
 Garth Bank Formation, 202
 Garth Fault, 199
 Gault Clay Formation, 41, 56

 Gironde Estuary, 54
glaucolithus Zone, 110, 115, 118, 123, 137
 glauconite
 coatings, 184–5
 Portlandian, 123, 131
 Shenley Limestone, 56
 glaucony, 100–1
 Glen Coe Quartzite, 266
 Glen Doe Formation, 267
 Glen Fintaig Formation, 262, 266
 Glen Goy Quartzite, 264
 glide planes, 147, 158–9
Glomerula gordialis, 129
 goethite, 99–100
 Woburn Sands, 45, 57
 Gondwana, 201
 Grampian Group, 259, 261–2
 graptolites, 201, 206
 Great Limestone, 35
 Green Ammonite Beds, 245
 Greenhorn Formation, 82, 92
 Greenland, 224
 Grey Shales, 239
 Gryphon Field, 149
 Gryphon-Forth area, 150, 165
 gull-wing structures, 170–1
 gully formation, 31
 gypsum, 127

 Haltenbanken, 263
 Hampshire Basin, subsidence, 223
 Hampshire Gulf, 189
 hardgrounds, 129, 177–9, 184
 phosphatised, 185, 190
 Harwich Formation, 210, 212, 216, 218–19, 221, 223
 Hatteras Formation, 82
 Hatton bank, 225
 Heatherslade Geosol, 64, 68
 heavy minerals, 218, 221
 Hebrides, 225
Hemicidaris, 136
 hemipelagic facies, 79, 81
 highstands, 14, 66, 70, 138
 Palaeocene, 220
 hindered settling, 150
 Hitch Wood Event, 190–1
 Hitch Wood Hardground, 187, 189
 Horda Formation, 225
 hothouse climates, 21
huddlestoni Zone, 85–6, 88–9, 91
 hydrocarbon expulsion, 79
 hydrogen indices, 79–80, 91
 hyper-concentrated flow, 149

 Iapetus, northern margin, 4
 Iapetus Ocean, 197
ibex Zone, 254, 259
 icehouse conditions, 32, 35
 igneous activity, and facies cycles, 225
 illite, 235
 incised valleys, 3, 35, 60
 mapping, 32
 Portlandian, 138
 incision distance, 28

- incision/aggradation cycles, 26
inertinite, 80
Innse Quartzite, 276
inoceramids, biostratigraphy, 183
Inoceramus cuvieri, 181
Inverlair Formation, 264, 267
Ipswich–Felixstowe High, 220, 223
iron mineralization, 187
iron reduction zone, 101–2
Ironstone Shales, 235, 238, 244, 251
ironstones, 46, 48
 environments, 103
 geochemistry, 100
 lateritic, 60
 mineralogy, 98–100
 ooidal, 97
 Shenley Limestone, 56
Isle of Portland, 115, 118, 129
Isle of Purbeck, 109, 115, 118, 129, 133
isotopes, *See* carbon isotopes, oxygen isotopes
- Jan Mayen Fracture Zone, 161
Jet Rock, 244, 246, 259
Junction Beds, 42, 56, 58
- kaolinite, 232, 235, 239
keep-up cycles, 31, 36
kerberus Zone, 123, 127–8, 131, 133, 136
kerogen, 76–7, 86
Kimmeridge Clay Formation, 75, 82–3
Kimmeridgian Stage, 113
kinetic incision, 26
Kinlochleven Anticline, 276
kitchini Subzone, 42
knickpoints, migration of, 26–7, 30–1
- Laevitrigonia gibbosa*, 123
lag deposits, Woburn Sands Formation, 41, 44
Laggan Formation, 272, 277
lagoonal limestone, 67–8
Lambeth composite sequence, 215, 220
Lambeth Group, 210, 212, 215–16, 218, 221
lamplughii Zone, 109, 131, 135, 139
Landen Formation, Lower, 213
Latemar carbonate, 63
Laurentia, 201, 204–5
Leighton Buzzard, 41
levee deposits, 159
Leven Schist Formation, 262, 266–7
liasicus Zone, 254
Lista Formation, 213, 215, 220, 224
lithofacies
 basin-floor fans, 151–2
 Monadhliath, 260–2
lithostratigraphy, Portlandian, 112
littoral environments, Shenley Limestone, 58
Llandovery Series, 198
Llanelly Formation, 64, 67, 70
Loch Treig Formation, 262, 264, 266
Lochaber subgroup, 261
London Clay Formation, 211–12, 218
London Platform, 109, 123, 131
lowstand fans, 210
lowstand wedges, 267
- lowstands, 14, 145, 150
 Cromarty, 222
 detached, 266
 Montrose cycle, 225
luridum Subzone, 255, 259
lydite, 123
- macdonnelli* Zone, 244
maculatum Subzone, 238, 251
Maloy fault blocks, 159
mammillatum Superzone, 42
Mammites nodosoides Zone, 177, 181, 193
mantle plumes, 224, 226
March Burn Quartzite, 276
margaritatus Zone, 238, 245, 247–8
marine facies, southern England, 219
marine profiles, 12–13
marine ravinement, 15
marker beds, Turonian, 182
mass transport
 Agat Formation, 160–1
 Frigg field, 162
 reservoirs, 172
mass wasting, 203
masseanum Subzone, 259
master bedding surfaces, 53
matrix buoyant lift, 150
Maureen Formation, 214, 222, 224–5
maximum flooding surface, 76, 81–2, 84
 Palaeocene, 218
Mere Fault, 109
Mere Sub-basin, 109
metamorphism, Grampian Group, 271
meteoric water, 100
mica, 246
microconchids, 68
microfossils, 184
mid-ocean ridge, 225
Midland Shelf, 83
Milankovitch cycles, 30, 72, 82, 86, 89, 92
mineralised surfaces, 3
Mississippi, incision, 25–6, 30
Modiolus, 123, 136
Monadhliath Mountains, 258–9
Monograptus sedgwickii, 202
Montrose Group, 224–5
Moray Firth
 Inner, 223
 Outer, 221–2
mud balls, 49
Mull, 225
mutabilis Zone, 89
Mynydd Bach Formation, 203
Myophorella, 123
Mytiloides, 180
- nannoplankton, 218
Nanogyra, 118, 123, 129
Navigation Hardground, 191
Neomiodon, 136
Niobrara Formation, 82
nodular chalk, 184
non-marine deposition, 2
North Atlantic, tectonics, 224

- North Sea Basin, 210
 marine conditions, 218
 tectonics, 222–3
 transgression, 215
nutfieldensis Zone, 41, 45, 48
- obtusum* Zone, 244, 251
 oceanic crust, 225
 odinite, 101
 Ogbourne Hardground, 187–9
 oil shales, 83–4
okusensis Zone, 123, 127, 131, 133, 137–8
 omission surfaces, 244–5, 251
 oncoids, 68
 onlap, models, 15
 ooids, Woburn Sands, 45, 47
 Oolite Group, 64, 70
Ophiomorpha, 46, 48, 49, 51
 organic facies, 75–7
 organic matter, 3
 Ormesby Clay Formation, 210, 212–14, 223
 Ormesby–Thanet composite sequence, 213, 220
 ostracods, 135–6, 139
Ostrea, 123
 overbank flows, 146
 oxic facies, 77, 81
 oxygen content, deep water, 82
 oxygen isotopes
 Portland Sand, 127
 Storegga Slide, 161
oxynotum Zone, 244
- Pachastrella*, 129
 palaeo-oxygenation, 80, 82, 89
 palaeocurrents, Woburn Sands, 44, 50–1
 Palaeogene, 209
 palaeokarst, 64, 70
 palaeomagnetism, 128–9
Palaeoperidium pyrophorum Zone, 213, 220
 palaeoproductivity, 81–2, 89
 palaeosols, 3
 Caswell Bay Mudstone, 68
 Portlandian, 118
 sequence boundaries, 63
 Woburn Sands, 55
 palaeovalleys, 36, 43, 134
 palynofacies, 76, 92
 Paradox Basin, 63
 paralic settings, 3
 parasequences, 91–2
 Paris Basin, 213
 passive margins, 11, 31
 Peak Fault, 235, 246
pectinatus Zone, 83, 86, 88–9
 pedogenesis, 63, 216
 Peira–Cava Sandstone, 171
 pelagic facies, 79, 81
Pelycipodichnus, 98
 Peniche, 258
 Pennine River, 58
 pentacycles, 63
 peritidal sediments, 63, 65, 70
 Pewsey Event, 190
 Pewsey Hardground, 187–90
 Pewsey Sub-basin, 109
 phosphate, 101, 103, 123, 185, 190
 phosphatic nodules, Woburn Sands, 42–3, 45, 56, 58
 phytoclasts, 77, 79, 89
 pinch out geometry, 157
 plastic flows, 172
 Plenus Marls, 186
Pleuromya, 123, 131
 pore waters, 100
 Portland Clay, 127
 Portland Group, 136
 Portland Sand, 127
 Portland Sand Formation, 110
 Portland Stone Formation, 133
 Portlandian Stage, 109
 base, 137
 sections, 114–17
 Posidonienschiefer, 258
 potassium, gamma-ray source, 231
 potential incision, 26
 Powys Supergroup, 198
Praexogyra distorta, 136
 prasinophytes, 77, 90
 productivity, Portlandian, 137
 progradation, 68, 78, 223, 251
 prograding wedges, 145
Protocardia dissimilis, 123, 131
 proximal facies, 77
 proximal-distal indicators, 78, 232, 235, 248
 psammites, 272
 Purbeck Limestone, 133–5
 erosional surfaces, 135
 pycnocline, 83, 92
 pyrite, 100
 Pyritous Shales, 235, 238, 248
 pyroclastics, 225
- quantitative studies, 9
 quartzites, 262
- ramps, carbonate, 66–7, 113, 137
 ravinement,
 definition, 211
 marine, 15
 shoreface, 57, 60, 62
 tidal, 54–5, 60, 62
 transgressive, 15, 19–20
 wave, 54–5, 60
 reactivation surfaces, 44
 Woburn Sands Formation, 55
 Reading Formation, 211–12, 215–16, 220, 223
 redox conditions, 81
regularis Subzone, 10, 24
 response distance, 28
 reworking
 ironstones, 101
 Shenley Limestone, 58
 tidal, 48
Rhabdammina biofacies, 216
Rhaxella, 129, 138
 rheology, 149
 Rio Grande, 35
 river lengths, 30

- river-shelf systems, 28–9
- Robin Hood's Bay, 233, 235
- Rockall, 225
- Rough Rock, 36
- salinity cycles, 135
- Salmon River Estuary, 54, 60
- sampling geometry, 232
- sand, provenance, 221
- sand dykes, 159
- sand sills, 159
- sand-wave complexes, 44
- Sandgate Beds, 48
- sandstone-lobe systems, 200, 203–4
- Scalby Formation, 34
- scale effects, 206
- Scarborough Formation, 34
- scipionianum* Zone, 254
- Sciponoceras*, 178, 181
- scitulus* Zone, 89
- Scotland, tilting, 223, 227
- scour channels, 187
- sea level, and anoxia, 81–2
- sea level changes, 55
 - alluvial stratigraphy, 25
 - Aeronian, 202
 - Carboniferous, 35, 64, 71–2
 - Dalradian, 266–7
 - fluvial profiles, 12, 17
 - Jurassic, 231
 - Kimmeridge, 89
 - model, 13, 15, 30, 35
 - Palaeocene, 215, 223
 - palaeosols, 35
 - Portlandian, 137
 - river responses, 26, 28–9, 31–2
 - Telychian, 201–4
 - Turonian, 185–92
- sea level curves, 89, 161, 231
- sea level oscillations, 71–3
- seafloor spreading, 222, 224, 226
- sediment accumulation rates, 78, 81, 83, 92
 - bone beds, 100
 - ironstones, 100
- sediment bypassing, 81
- sediment concentration, 148–9
- sediment continuity equation, 26
- sediment partitioning, 20
- sediment starvation, 244
- sediment supply, 2
 - variations in, 19
- sediment support, 149
- sedimentary structures, fold hinges, 271
- seismic profiles
 - Agat area, 158–9
 - Faeroe Basin, 154
 - Frigg field, 162
 - Gryphon–Forth area, 165
- seismograms, synthetic, 167
- Sele Formation, 215, 218, 220–1
- semicostatum* Zone, 235
- semipelites, 272
- Senneville Hardground, 193
- sequence boundaries
 - duration of, 14
 - hardgrounds, 185
 - Kimmeridge Clay, 85
 - Portlandian, 137–40
 - recognition of, 60
 - type-1, 14, 146, 152
 - type-2, 15, 31
 - Welsh Basin, 206
- sequence periodicity, 222
- sequence stacking, 257
- Shales-with-'Beef', 244, 248
- shallow marine deposits, 3
- shallow water facies, Monadhliath, 263
- shear planes, 167
- shear zones, 159
- sheet mounds, 161
- shelf angles, 30
- shelf break, 13
- shelf deposits, 53–4
- shelf systems, 200, 202
- shelfal successions, 262
- Shenley Limestone, 42, 56
- Shetland Basins, 223
- shoal deposits, 66–8, 71
- shoreface
 - erosion, 71
 - geometry, 12
- shoreface ravinement, 57, 60
- Siberia, 201
- siderite, 98, 100
- Sierra del Utiel Formation, 65
- Siliceous Shales, 235, 248
- siliciclastic dilution, 90–1
- Silver Sands sequence, 44, 48–51
- Skolithos*, 49, 51
- slides, 147
- slope angles, 170
- slope fans, 145–6, 169, 171
- slope-apron systems, 200, 202
- slump folds, 147, 161
- slump model, Gryphon field, 166
- slump sheets, 159, 168
- slumps, 147, 158–9, 161
- Sole Pit, 221
- spathi* Subzone, 43, 58
- Spean Viaduct Quartzite, 276
- sponge spicules, 129–30
- spreading centre, Atlantic, 48
- Staithe Sandstone, 238, 248
- standard sections, British, 2
- Storegga Slide, 161
- stromatolites, 133
- submarine fans, 247
- Subprionocyclus neptuni* Zone, 183, 190
- subsidence
 - Hampshire Basin, 223
 - regional, 202, 207, 226
 - thermal, 11, 225
- subsidence analysis, 205
- sulphate reduction, 127
- sulphide oxidation, 102
- supersequences, 277
- supratidal sediments, 70, 139
- suspect terranes, 278

- systems tracts, 1, 14, 267
 Agat area, 161
 tectonic, 207
- Taenidium*, 49
tardefurcata Zone, 42
 Tarff Banded Formation, 262, 264
 tectonic control, 206–7
 North Sea, 221
 tectonic cycles, 224
Teichichnus, 49
tenuicostatum Zone, 235, 245
 tephra, 215, 221, 225–6
Terebratulina lata Zone, 188
Teredolites, 49
 terrace development, 26
 Th/K ratios, 232, 235, 238–9, 245, 248
Thalassinoides, 98, 118, 129, 133, 181, 186
 Thames composite sequence, 218, 221
 Thames Group, 212, 218
 Thanet Sand Formation, 210, 212–14, 216
 thickness:width ratios, 168
 thorium, gamma-ray source, 232
 tidal currents, 44
 tidal deposition, 41, 267
 tidal ravinement, 54–5, 60
 Tilleul Hardground, 189, 193
Titanites, 129
 Top Rock, 192
 total organic carbon, 75–6, 80
 dolomites, 127
 Jurassic, 254
 trace fossils, 186
 traction structures, 150, 167
 transgressive ravinement, 15, 19–20
 transgressive surfaces, Portlandian, 137
 transgressive system tracts, 14–15, 65–7, 71
 Grampian Group, 272
 Portlandian, 140
 Turonian, 186
 transgressive/regressive sequences, 206, 211, 262
 Treig Syncline, 276
 turbidites
 grading, 162, 169
 Monadhliath, 262
 sand-rich, 146, 159
 turbidity currents, 148
 channelized, 146
 high-density, 148
 unconfined, 169
- turneri* Zone, 251
 Turonian, sea-level, 177
 Tywi Lineament, 205
- unconformities, Portlandian, 110
 uniqueness problem, 19, 21
 uplift, North Sea, 223
 Upnor Formation, 210, 212, 215–16, 218
 upper slopes, Agat Formation, 160
 uranium
 and anoxia, 235
 gamma-ray source, 231, 239, 244
- valdani* Subzone, 262
 Vale of Pewsey, 109, 123, 131, 136
 Vale of Wardour, 118, 121–3, 131, 138
 valley lengths, 31
 valley margins, erosion, 32
 valley widening, 31
 valley-fill deposits, 33, 60
 Carboniferous, 35–6
 verdine, 101
 Viking Graben, 223, 227
 vitrinite, 80
 volcanism, Atlantic, 222
 Voring Plateau, 161
- water depth, 82
 water escape structures, 162, 167
 water load, 205
 water stratification, 82, 92
Watinoceras devonense Zone, 181, 192
 wave ravinement, 54–5, 60
 wave-modified bedforms, 52
 The Weald, 136
 Welsh Basin, 197
 sections, 198–201
 Wessex Basin, 83, 85, 89–90, 109, 189
wheatleyensis Zone, 85, 88–9, 91
 Whitby Mudstone Formation, 238–9
 White Chalk Formation, 178
 Woburn Sands Formation, 41
 lag deposits, 41
 summary log, 45
 Woolwich Formation, 210, 212, 215–16, 220, 223
- Yoredale cycles, 35
- Zoophycos*, 186, 191