Contents

Preface		page v
In	troduction	1
1	The new Stone Age (Geology and the Earth 1800–40)	3
	The birth of Geology	3
	The psychology of Geology	6
	A tale of two Earths	10
2	The big apple (The contracting Earth 1830–1910)	14
	The web of geometry	14
	The war between the geologists and physicists	24
	The defenders of Geology	27
3	New world (The clues that led to continental drift 1830–1914)	34
	A mental Geography	34
	Coexisting worlds	38
	Balancing the crust	44
	The mountain builders	47
	Sister Moon	54
	The origin of the continents and oceans	56

4	Coming apart at the seams (The continental drift debate 1900–30)	61
	Wegener's drift	61
	The great debate	66
	The English welcome	73
	The American rejection	78
	The death of Wegener	84
5	The war of the worlds (The battle between the mobilists and fixists 1912–60)	88
		88
	The hot Earth The German expressionists	97
	America: the triumph of fixism	100
	The far-flung outposts of drift	106
	The new territories	111
	The expanding Earth	116
6	A naval engagement (The conquest of the oceans 1930–63)	122
	The birth of Oceanography	122
	Field's 'children'	125
	The war boom	132
	Mapping the oceans	136 139
	Sea-floor spreading	139
	Marine magnetics The mid-ocean tape recorder	145
7	The Big Bang (From seismology to plate tectonics 1954–70)	155
	The rebirth of Seismology	155
	Continental drift revisited	160
	Serving up the plates	162
	The great conversion	164
	The geometry of the spheres	161
	The disappearing oceans	171

Contents				
8	The age of the Earth (The origins of the Earth Sciences 1850–1970)	179		
	A revolution in the Earth Sciences! The creation of the Earth Sciences A cultural revolution An alternative history of plate tectonics The leaders of the revolution	179 182 189 193 200		
9	The eclipse of Geology (The decline of the old order 1912–80)	203		
	The reaction of the geologists The Russian rift G-éloge	203 210 223		
References		224		
Bibliography		236		
Index		238		