

Contents

Preface	xvii
Abbreviations	xviii
Geological periods	xviii
Abstract	xix
Introduction	1
Early history and development of technology.....	1
Development of technology.....	1
Problems	2
Transport underground.....	3
Raising coal to the surface.....	4
Other aspects.....	4
Surface features	5
The workforce.....	6
Training and dissemination of knowledge.....	6
Women and children	7
Slavery and forced labour	7
Religion.....	8
Health.....	9
Trade unions and strike action	9
Disasters and their results	10
Legislation following a disaster.....	10
Political consequences following a disaster	11
Aftermath of disasters.....	11
Memorials	11
Operational sites open to the public	12
Mining museums	12
Architecture	12
Art.....	13
Fossils	14
The future	14
Gazetteer	15
Sites covered in the survey	15
Sources of information	15
Arrangement of gazetteer	16
Terminology and transcriptions.....	16
Australia	17
1. Australian Coal Mining Museum	17
2. Balgownie Heritage School Museum (formerly Balgownie Primary School Museum).....	17
3. Blair Athol Coal Mine	19
4. Bulli Miners' Cottage.....	19
5. City of Greater Lithgow State Mining Museum.....	20
6. Coal Creek Heritage Village	21
7. Coal Mines Historic Site.....	22
8. Collie Coalfields Museum	22
9. Collinsville Coalface Experience	23
10. Cornwall Coalminers Heritage Wall.....	24

11. Gunnedah Rural Museum	24
12. Kandos Museum (formerly Kandos Bicentennial Industrial Museum).....	24
13. Mount Kembla Heritage Centre.....	24
14. Newcastle Museum.....	25
15. Old Brown Coal Mine Museum	25
16. Richmond Vale Railway Museum	27
17. Sir Edgeworth David Memorial Museum.....	30
18. Tarrawanna Travelling Road Miner and Pit Pony Tribute.....	31
19. State Coal Mine	31
Austria.....	33
20. Bergbaumuseum Fohnsdorf (Fohnsdorf Mining Museum).....	33
21. Technisches Museum Wien (Vienna Museum of Technology)	34
Belgium	37
22. Blegny-Mine (Blegny-Mine).....	37
23. Bois-du-Luc, Musée de la Mine et du Développement Durable (Bois-du-Luc, Museum of Mine and Sustainable Development; formerly Ecomusée du Bois-du-Luc: Bois-du-Luc Ecomuseum)	39
24. Charleroi Mines (Charleroi Mines)	41
25. C-Mine Expeditie (C-Mine Expedition)	41
26. Eisden Kolenmijn (Eisden Coal Mine).....	43
27. Koolmijn André Dumont Genk Waterschei (André Dumont Coal Mine Genk Waterschei).....	43
28. La Chaîne des Terrils (The Chain of Spoil Heaps).....	44
29. Le Bois du Cazier (The Bois du Cazier)	46
30. Le Charbonnage du Hasard de Cheratte (The Hasard de Cheratte Coal Mine).....	47
31. Marcasse	47
32. Mijnmuseum Beringen (Beringen Mining Museum; formerly Vlaams Mijnmuseum: Flemish Mining Museum)	50
33. Musée de la Mine d’Harchies (Harchies Mining Museum)	51
34. Museum van de Mijnwerkerswoning (Museum of the Miner’s House).....	53
35. Parc d’Aventures Scientifique (Scientific Adventures Park)	53
36. Sauwartan	54
37. Site du Grand-Hornu (Site of Grand-Hornu).....	54
38. Site du Levant (Levant Site).....	57
39. Steenkoolmijn van Heusden-Zolder (Heusden-Zolder Coal Mine).....	57
40. Steenkoolmijn van Houthalen (Houthalen Coal Mine)	59
Bosnia-Herzegovina.....	61
41. Muzej Rudarstva i Železnice (Museum of Mining and Railways).....	61
Brazil.....	62
42. Museu Estadual do Carvão (State Coal Museum).....	62
43. Mina de Visitaçã Octávio Fontana (Octávio Fontana Mine Visit).....	62
Brunei Darussalam	63
44. Brooketon Colliery	63
Bulgaria.....	64
45. Pernik – Podzemen Minen Muzei (Pernik Underground Mining Museum)	64
Canada	66
46. Atlas Coal Mine National Historic Site.....	66
47. Bellevue Underground Mine	67
48. Cape Breton Miners’ Museum.....	68
49. Cumberland Museum and Archives.....	70
50. Ladysmith Museum	71
51. Michel-Natal-Sparwood Heritage.....	71

52. Morden Mine	72
53. Nanaimo Museum.....	74
54. Nova Scotia Museum of Industry	75
55. Sydney Mines Heritage Museum.....	76
Chile	77
56. El Chiflón del Diablo (The Whistle of the Devil)	77
57. El Museo Histórico de Lota (The Historical Coal Museum of Lota; formerly El Museo Histórico del Carbón: The Historical Museum of Coal)	78
China	81
58. Jiā Yáng Guójiā Kuàngyè Gōngyuán Bówùguǎn (Jiā Yáng National Mining Park Museum).....	81
59. Kāi Lu Guójiā Kuàngshān Bówùguǎn (Kailuan National Mine Museum)	82
60. Zhōngguó Méitàn Bówùguǎn (Coal Museum of China).....	83
Colombia.....	84
61. El Cerrejón (The Cerrejón).....	84
62. Museo desQbre guajira (Museum desQbre guajira).....	84
Croatia.....	86
63. Etnografski muzej Istre (Istria Ethnographic Museum)	86
64. Memorijalni Centar u Rudarstvu (Mining Memorial Centre)	86
65. Narodni muzej Labin (Labin People’s Museum).....	87
66. Tehnički muzej Nikola Tesla (Nikola Tesla Technical Museum; formerly Tehnički muzej Zagreb: Zagreb Technical Museum).....	87
Czechia (formerly Czech Republic)	88
67. Hornické muzeum OKD Landek (OKD Mining Museum Landek).....	88
68. Hornický Skanzen Mayrau ve Vinařicích (Mayrau Mining Museum in Vinařice)	89
69. Hornický Skanzen Žacléř (Žacléř Mining Museum)	91
70. Národní památkový ústav, Česká republika (National Heritage Institute, Czech Republic).....	93
71. Podkrušnohorské technické muzeum (Podkrušnohorské Technical Museum)	94
72. Uhelné Safari (Coal Safari)	95
Denmark	97
73. Energimuseet (Danish Museum of Energy; formerly Elmuseet: Museum of Electricity).....	97
74. Søby Brunkulsmuseum (Søby Lignite Museum)	98
Europe.....	99
75. European Route of Industrial Heritage	99
Faroe Islands	100
76. Hvalba.....	100
France.....	102
77. Bassin Minier du Nord-Pas-de-Calais inscrit au Patrimoine Mondial de l’UNESCO (UNESCO Nord-Pas-de-Calais Coalfield World Heritage Site).....	103
78. Centre Historique Minier (Mining History Centre).....	105
79. Givenchy-lès-la-Bassée Memorial.....	107
80. La Catastrophe des Mines de Courrières (The Courrières Mines Disaster)	108
81. La Chaîne des Terrils (The Chain of Spoil Heaps).....	112
82. Le Centre Denis Papin: Centre de la Mine et du Chemin de Fer (The Denis Papin Centre: Mine and Railway Centre).....	112
83. Mine Témoin d’Alès (Alès Simulated Mine)	114
84. Musée de la Mine à La Machine (La Machine Mining Museum)	114
85. Musée de la Mine (Mining Museum), Brassac-les-Mines.....	114
86. Musée de la Mine (Mining Museum), Cagnac-les-Mines	114

87. Musée de la Mine de Blanzly (Blanzly Mining Museum; formerly the Musée de l'Association la Mine et les Hommes: Museum of the Mine and Men Association).....	115
88. Musée de la Mine de Bruay La Buissière (Bruay La Buissière Mining Museum).....	115
89. Musée de la Mine (Mining Museum), Épinac	116
90. Musée de la Mine Jacques Déramaux (Jacques Déramaux Mining Museum)	117
91. Musée de la Mine (Mining Museum), Le-Molay Littry	118
92. Musée de la Mine Marcel Maulini (Marcel Maulini Mining Museum)	120
93. Musée de la Mine, Puits Hély d'Oissel (Mining Museum, Hély d'Oissel Pit).....	122
94. Musée de la Mine (Mining Museum), Saint Étienne	123
95. Musée les Mineurs Wendel (Wendel Miners' Museum; formerly Musée du Carreau Wendel: Carreau Wendel Museum)	124
Germany	125
96. Barbarastollen (Barbara Gallery).....	126
97. Bergbaudenkmal Adolf (Adolf Mining Monument).....	126
98. Bergbaumuseum Ibbenbüren (Ibbenbüren Mining Museum).....	127
99. Bergbaumuseum Oelsnitz (Oelsnitz Mining Museum).....	128
100. Bergbaumuseum und Bergmannshaus des Bergmännischen Traditionsvereins für Stein- und Braunkohle (Mining Museum and Miner's House of the Association for the Tradition of Coal and Brown-Coal Mining).....	131
101. Bergbau-Technik-Park (Mining-Technology-Park)	131
102. Bergbau- und Heimatmuseum Erbdorf (Erbdorf Mining and Local History Museum).....	133
103. Bergbauwanderweg Muttental (Muttental Mining Heritage Trail).....	133
104. Bergwerk Camphausen (Camphausen Mine).....	134
105. Bergwerk Ensdorf (Ensdorf Mine).....	135
106. Besucherbergwerk F60 (F60 Visitor Mine)	136
107. Besucherbergwerk Rischbachstollen (Rischbachstollen Visitor Mine)	138
108. Deutsches Bergbau Museum (German Mining Museum; formerly the Bergbaumuseum: Mining Museum).....	139
109. ENERGETICON (formerly Bergbaumuseum Wurmrevier: Wurmrevier Mining Museum; Bergbaumuseum Grube Anna: Anna Pit Mining Museum)	141
110. Energiefabrik Knappenrode (Knappenrode Energy Factory; formerly Lausitzer Bergbaumuseum Knappenrode: Knappenrode Lusatian Mining Museum).....	143
111. ENERGIE-Route der Lausitzer Industriekultur (ENERGY-Route of Lusatian Industrial Heritage)	144
112. Erlebnisbergwerk Velsen (Velsen Mine Experience; formerly the Alte Grube Velsen: Velsen Old Mine).....	146
113. Erlebnisort Reden (Reden Experience).....	148
114. Ferropolis (Town of Iron).....	150
115. Göttelborn Grube (Göttelborn Pit).....	152
116. Gruben- und Feldbahnmuseum Zeche Theresia (Theresia Colliery and Field Railway Museum).....	152
117. Grube Feggendorfer Stollen (Feggendorfer Pit Roadway)	153
118. Haus des Bergmanns (House of the Miner)	153
119. Heimat- und Braunkohlemuseum Steinberg am See (Steinberg am See Local History and Lignite Museum)	155
120. Herrmannschacht Brikettfabrik (Herrmannschacht Briquette Factory).....	155
121. Hessisches Braunkohle Bergbaumuseum Borken (Borken Brown-Coal Mining Museum of Hesse)	156
122. Hüttenstollen Osterwald (Osterwald Worked Gallery)	157
123. IBA Terrassen – Besucherzentrum Lausitzer Seenland (IBA Terraces – Visitor Centre Lusatian Lakeland).....	158
124. Klosterstollen Barsinghausen (Barsinghausen Monastery Roadway)	159
125. Kokerei Hansa (Hansa Coking Plant)	159
126. LWL-Industriemuseum: Westfälisches Landesmuseum für Industriekultur (LWL-Industrial Museum: Westphalian State Museum of Industrial Heritage)	159
127. Zeche Hannover (Hanover Colliery)	160
128. Zeche Nachtigall (Nightingale Colliery).....	163
129. Zeche Zollern (Zollern Colliery).....	164
130. Maximilian Park (Maximilian Park).....	167
131. Museum der Mineralien (Museum of Minerals).....	168

132. Museum Industriekultur Osnabrück (Osnabrück Museum of Industrial Culture).....	168
133. Nordstern Park (Nordstern Park)	168
134. Rabensteiner Stollen (Rabensteiner Roadway).....	169
135. Route der Industriekultur (Industrial Heritage Route)	169
136. <i>Bergarbeiter-Wohnmuseum (Museum of Miners' Lives)(TR 7)</i>	170
137. <i>Bergbaugedenkstätten auf dem Ostfriedhof (mining memorials in the Ostfriedhof)(TR 16)</i>	170
138. <i>Bergwerk Auguste Victoria, Schacht 1/2 (Augusta Victoria Mine, shaft 1/2)(TR 7)</i>	170
139. <i>Bergwerk Auguste Victoria, Schacht 3/7 (Augusta Victoria Mine, shaft 3/7)(TR 7)</i>	170
140. <i>Bergwerk Auguste Victoria, Schacht 8 (Augusta Victoria Mine, shaft 8)(TR 7)</i>	170
141. <i>Bergwerk Ost, Schächte Heinrich-Robert (East Mine, Heinrich-Robert shaft)(TR 7)</i>	171
142. <i>Deutschland-Bergbauwanderweg (German mining trail)(TR 11)</i>	171
143. <i>Fördergerüst Zeche Heinrich (Heinrich Colliery headgear)(TR 12)</i>	171
144. <i>Förderturm Bönen-Ostpol (Bönen-Ostpol headgear)(TR 10)</i>	171
145. <i>Früher Bergbau in Fröndenberg (early mining in Fröndenberg)(TR 10)</i>	171
146. <i>Gedenkstätte Zeche Radbod (Radbod Colliery memorial)(TR 7)</i>	171
147. <i>Hammerkopfturm Zeche Erin 3 (hammerhead headgear Erin Colliery 3)(TR 16)</i>	172
148. <i>Kleinzeche Egbert (Egbert Small Colliery)(TR 11)</i>	172
149. <i>Kulturzentrum Zeche Carl (Carl Colliery Cultural Centre)(TR 17)</i>	172
150. <i>Kulturzentrum Schacht III, Zeche Werne (Shaft III Cultural Centre, Werne Colliery)(TR 7)</i>	172
151. <i>Künstlerzeche Unser Fritz (Our Fritz Art Colliery)(TR 8)</i>	172
152. <i>Kunstwald Zeche Teutoburgia (Teutoburg Colliery Art Forest)(TR 16)</i>	173
153. <i>Maschinenhalle Zeche Scherlebeck – Schacht V/VI (winding-engine house of Scherlebeck Colliery – shaft V/VI)(TR 16)</i>	173
154. <i>Maschinenhalle Zeche Zweckel (winding-engine house Zweckel Colliery)(TR 16)</i>	173
155. <i>Pförtnerhaus Zeche Königsborn 2/5 (gatehouse Königsborn Colliery 2/5)(TR 10)</i>	174
156. <i>Rheinhauser Bergbausammlung (Rheinhauser mining collection)(TR 3)</i>	174
157. <i>Schacht Gerdt (Gerdt shaft)(TR 3)</i>	174
158. <i>Schacht Lerche (Lark shaft)(TR 7)</i>	174
159. <i>Schacht Oberschuir (Oberschuir shaft)(TR 16)</i>	174
160. <i>Schacht Rossenray (Rossenray shaft)(TR 17)</i>	174
161. <i>Trainingsbergwerk Recklinghausen (Recklinghausen Training Mine)(TR 8)</i>	175
162. <i>Zeche Adolf von Hansemann (Adolf von Hansemann Colliery)(TR 6)</i>	175
163. <i>Zeche Alte Haase (Old Hare Colliery)(TR 16)</i>	175
164. <i>Zeche Arenberg Fortsetzung (Successor to the Arenberg Mine)(TR 16)</i>	175
165. <i>Zeche Auguste Victoria Schacht 4/5 (Augusta Victoria Colliery shaft 4/5)(TR 7)</i>	175
166. <i>Zeche Bergmannsglück (Miner's Luck Colliery)(TR 16)</i>	176
167. <i>Zeche Bonifacius (Boniface Colliery)(TR 17)</i>	176
168. <i>Zeche Brockhauser Tiefbau (Civil Engineering Brockhauser Colliery)(TR 16)</i>	176
169. <i>Zeche Carl Funke (Carl Funke Colliery)(TR 12)</i>	176
170. <i>Zeche Concordia, Schacht 6 (Concordia Colliery, shaft 6)(TR 4)</i>	177
171. <i>Zeche Consolidation 3/4/9 (Consolidation Colliery 3/4/9)(TR 8)</i>	177
172. <i>Zeche Erin 7 (Erin Colliery 7)(TR 16)</i>	177
173. <i>Zeche Friedlicher Nachbar (Peaceful Neighbour Colliery)(TR 16)</i>	177
174. <i>Zeche Friedrich Heinrich (Friedrich Heinrich Colliery)(TR 17)</i>	177
175. <i>Zeche Friedrich Thyssen (Friedrich Thyssen Colliery)(TR 3)</i>	178
176. <i>Zeche Fürst Leopold (Prince Leopold Colliery)(TR 7)</i>	178
177. <i>Zeche Gneisenau (Gneisenau Colliery)(TR 6)</i>	178
178. <i>Zeche Graf Bismarck 1/4 (Count Bismarck Colliery 1/4)(TR 8)</i>	178
179. <i>Zeche Hansa (Hansa Colliery)(TR 6)</i>	179
180. <i>Zeche Helene Bertha (Helene Bertha Colliery)(TR 17)</i>	179
181. <i>Zeche Holland 1/2 (Holland Colliery 1/2)(TR 16)</i>	179
182. <i>Zeche Holland 3/4/6 (Holland Colliery 3/4/6)(TR 16)</i>	179
183. <i>Zeche Hugo (Hugo Colliery)(TR 16)</i>	180
184. <i>Zeche Julius Philipp (Julius Philipp Colliery)(TR 16)</i>	180
185. <i>Zeche Königin Elisabeth, Schacht Emil (Queen Elisabeth Colliery, Emil shaft)(TR 17)</i>	180
186. <i>Zeche Königsborn 3/4 (Königsborn Colliery 3/4)(TR 16)</i>	180
187. <i>Zeche Lothringen (Lorraine Colliery)(TR 16)</i>	180

188. Zeche Minister Achenbach, Schacht 4 - LÜNTEC-Tower (Minister Achenbach Colliery, shaft 4 – LÜNTEC-Tower)(TR 7).....	181
189. Zeche Minister Stein (Minister Stein Colliery)(TR 6).....	182
190. Zeche Monopol, Schacht Grimberg 1/2 (Monopole Colliery, Grimberg shaft 1/2)(TR 7).....	182
191. Zeche Monopol, Schacht Grillo (Monopoly Colliery, Grillo shaft)(TR 10).....	182
192. Zeche Niederberg (Lower Mountain Colliery)(TR 17).....	182
193. Zeche Oberhausen (Oberhausen Colliery)(TR 4).....	183
194. Zeche Osterfeld (Osterfeld Colliery)(TR 4).....	183
195. Zeche Osterfeld, Schacht IV (Osterfeld Colliery, shaft IV)(TR 4).....	183
196. Zeche Pattberg (Pattberg Colliery)(TR 17).....	183
197. Zeche Prosper II (Prosper Colliery II)(TR 16).....	183
198. Zeche Radbod (Radbod Colliery)(TR 7).....	183
199. Zeche Rechlinghausen I (Rechlinghausen Colliery I)(TR 8).....	184
200. Zeche Rechlinghausen II (Rechlinghausen Colliery II)(TR 8).....	184
201. Zeche Rheinpreussen Schacht 1/2 (Prussian Rhine Colliery shaft 1/2)(TR 3).....	184
202. Zeche Rheinpreussen Schacht 4 (Prussian Rhine Colliery shaft 4)(TR 17).....	184
203. Zeche Rheinpreussen Schacht 5/9 (Prussian Rhine Colliery shaft 5/9)(TR 17).....	184
204. Zeche Robert Müser (Robert Müser Colliery)(TR 16).....	185
205. Zeche Sachsen (Saxony Colliery)(TR 7).....	185
206. Zeche Schlägel und Eisen 3/4/7 (Hammer and Pick Colliery 3/4/7)(TR 16).....	185
207. Zeche Sterkrade (Sterkrade Colliery)(TR 4).....	185
208. Zeche Trappe (Bustard Colliery)(TR 9).....	186
209. Zeche Unser Fritz 1/4 (Our Fritz Colliery)(TR 8).....	186
210. Zeche Vereinigte Carolinenglück 2/3 (United Good Luck Caroline Colliery 2/3)(TR 8).....	186
211. Zeche Vereinigte Gibraltar (United Gibraltar Colliery)(TR 29).....	186
212. Zeche Vereinigte Helene-Amalie (Combined Helene-Amalie Colliery)(TR 17).....	186
213. Zeche Walfisch (Walfisch Colliery)(TR 11).....	187
214. Zeche Walsum (Walsum Colliery)(TR 3).....	187
215. Zeche Waltrop (Waltrop Colliery)(TR 7).....	187
216. Zeche Werne (Werne Colliery)(TR 7).....	187
217. Zeche Westerholt (Westerholt Colliery)(TR 16).....	187
218. Zeche Westfalen (Westphalian Colliery)(TR 16).....	188
219. Zeche Westhausen (Westhausen Colliery)(TR 6).....	188
220. Zeche Wohlverwahrt (Well-Guarded/Well-Preserved Colliery)(TR 12).....	188
221. Zeche Zollverein 1/2/8 (Zollverein Colliery 1/2/8)(TR 2).....	188
222. Zeche Zollverein 3/7/10 (Zollverein Colliery 3/7/10)(TR 2).....	189
223. Zeche Zollverein 4/5/11 –Triple Z (Zollverein Colliery 4/5/11– Triple Z)(TR 2).....	189
224. Zollverein (Zollverein)(TR 2).....	189
225. Ruhr Museum (Ruhr Museum; formerly Ruhrlandmuseum: Museum of the Ruhrland).....	190
226. Saarländisches Bergbaumuseum Bexbach (Bexbach Saarland Mining Museum).....	191
227. Städtische Sammlungen Freital (Freital City Collections).....	193
228. Stiftung Industriedenkmalpflege und Geschichtskultur (Foundation for Industrial Monuments and Historical Culture).....	195
229. Strasse der Macht (Road of Power).....	195
230. Tagebau Welzow-Süd (Welzow-South Opencast Mining).....	196
231. Zeche Ewald (Ewald Colliery).....	196
232. Zeche Sophia-Jacoba (Sophia-Jacoba Colliery).....	198
233. Zeche Zollverein XII (Zollverein Colliery XII).....	198
Hungary.....	201
234. Ajka Bányászati Múzeum/Alsó-Csingervölgy Bányászati Múzeum (Ajka Coal Mine Museum/Lower Csinger Valley Coal Museum).....	201
235. Soproni Múzeum Központi Bányászati Múzeum (Sopron Museum Central Mining Museum): Központi Bányászati Múzeum (Central Mining Museum).....	201
236. Soproni Múzeum Központi Bányászati Múzeum (Sopron Museum Central Mining Museum): Oroszlány Bányász Múzeum (Oroszlány Mining Museum).....	203
237. Mecsek Bányászati Múzeum (Mecsek Mining Museum).....	205

India	206
238. Bidala Audyogik Tatha Praudyogikee Sangrahaalay (Birla Industrial and Technological Museum).....	206
Indonesia	209
239. Lubang Mbah Suro (Mbah Suro Tunnel)	209
Ireland	211
240. Arigna Mining Experience.....	211
241. Castlecomer Discovery Park.....	213
242. Clonmel Museum.....	215
Italy	216
243. Archivio Storico Minerario (Mining Historical Archives)	216
244. Centro Italiano della Cultura del Carbone (Italian Centre of the Culture of Coal).....	217
245. MINE Museo delle Miniere e del Territorio di Cavriglia (MINE Mining Museum and the Territory of Cavriglia).....	218
246. Nuraxi Figus.....	221
247. Parco Geominerario Storico e Ambientale della Sardegna (Sardinian Historical and Environmental Geological Mining Park).....	221
Japan	224
248. Gunkanjima Dejitaru Myūjiamu (Gunkanjima Digital Museum; formerly Gunkanjima Hakubutsukan: Gunkanjima Museum).....	224
249. Hoshi no Furusato Hyakunen Kinenkan (Hoshi no Furusato Centennial Museum).....	227
250. Iwaki-shi Sekitan Kasekikan ‘Hororu’ (‘Hororu’ Iwaki City Coal and Fossil Museum)	227
251. Kamisunagawa Tankōkan (Kamisunagawa Coal Mining Museum).....	230
252. Kikuchi Hiromi Kinenkan Takahagi Tankō Shiryōkan (Kikuchi Hiromi Memorial Hall Takahagi Coal Mining Museum).....	231
253. Kurate-machi Rekishi Minzoku Hakubutsukan (Kurate Town History and Folklore Museum)	232
254. Kyū Taiheiyō Tankō Tankō Tenjikan (Taiheiyō Colliery Exhibition).....	234
255. Mandakō Sutēshon (Manda Pit Station)	234
256. Miroku-zawa Tankō Shiryōkan (Miroku-zawa Coal Mining Museum)	237
257. Mitsubishi Bibai Kinenkan (Mitsubishi Bibai Memorial Museum).....	237
258. Miyawaka-shi Sekitan Kinenkan (Miyawaka City Coal Mining Memorial Museum).....	239
259. Nagasaki Gunkanjima Shiryokan (Nagasaki City Warship Island Museum)	240
260. Nagasaki-shi Ikeshima Tankō Taiken Shisetsu (Nagasaki City Ikeshima Coal Mine Experience)	240
261. Nagasaki-shi Takashima Sekitan Shiryōkan (Nagasaki City Takashima Coal Mining Museum)	242
262. Nishishoro Komyuniti Sentā-nai Sekitan Shiryōshitsu (Coal Museum in the Nishishoro Community Centre).....	242
263. Nōgata-shi Tankō Kinenkan (Nōgata City Coal Mining Memorial Museum)	243
264. Numata-chō Tankō Shiryōkan (Numata Town Coal Mining Museum; formerly Numata-chō Tankō Shiryōkan ((Numata-chō Furusato Shiryōbunkan)): Numata Town Coal Mining Museum ((Numata Hometown Annexe Museum))	244
265. Ōmuta-shi Sekitan Sangyō Kagakukan (Ōmuta Coal Industry and Science Museum).....	244
266. Sasebo-shi Sechibaru Tankō Shiryōkan (Sasebo City Sechibaru Coal Mining Museum).....	245
267. Sorachi Yama no Kioku Manejimento Sentā (Sorachi Coal-Mine Heritage Management Centre).....	248
268. Sorachi Yama no Kioku no Rūto (Sorachi Coal-Mine Heritage Route)	248
269. <i>Akabira</i>	248
270. <i>Kamisunagawa</i>	248
271. <i>Mikasa</i>	251
272. <i>Utashinai</i>	251
273. Tagawa-shi Sekitan Rekishi Hakubutsukan (Tagawa City Coal Mining Historical Museum).....	251
274. Tankō to Tetsudōkan, Yūdzuru-eki (Coal-Mine and Railway Hall, Yūdzuru Station)	254
275. Ube-shi Sekitan Kinenkan (Ube City Coal Mining Memorial Museum)	256
276. Utashinai-shi Kyōdokan Yumetsumugi (Utashinai City Local Municipal Museum for Spinning of Dreams)	256
277. Yūbari Sekitan Hakubutsukan (Yūbari Coal Mining Museum)	258

Malaysia	260
278. Pulau Labuan Muzium Chimney (Labuan Island Chimney Museum) and Muzium Labuan (Labuan Museum).....	260
Mongolia	263
279. Mongolyn Gyeologi Erdes Bayalgiin Muzyei (Museum of Geology and Mineral Resources of Mongolia).....	263
Netherlands	264
280. Nederlands Mijnmuseum (Dutch Mining Museum).....	264
281. Steenkolenmijn (Coal Mine).....	266
New Zealand (known by Māori as Aotearoa)	267
282. Alborns Coal Mine	267
283. Benneydale Coal Mine	268
284. Blackball Coal Mine	269
285. Brunner Mine	270
286. Coaltown Museum	270
287. Granity Incline Track.....	272
288. Lankey Creek Coal Mine	273
289. Reefton.....	273
290. Thames School of Mines Mineralogical Museum.....	274
291. The Denniston Experience (formerly the Banbury Tourist Mine Railway).....	275
292. Waikato Coalfields Museum	275
Nigeria	279
293. National Museum of Unity Enugu.....	279
Norway	280
294. Gruve 3 (Mine 3).....	280
295. Svalbard Museum	281
Poland	283
296. Muzeum Górnictwa Podziemnego w Nowej Rudzie (Nowa Ruda Underground Mining Museum).....	283
297. Muzeum Górnictwa Węglowego w Zabrze (Zabrze Coal Mining Museum).....	283
298. <i>Muzeum Górnictwa Węglowego w Zabrzu: Sztolnia Królowa Luiza (Zabrze Coal Mining Museum: Queen Louise Adit)</i>	284
299. <i>Muzeum Górnictwa Węglowego w Zabrzu: Zabytkowa Kopalnia Wegla Kamiennego Guido (Zabrze Coal Mining Museum: Historic Guido Coal Mine)</i>	286
300. Muzeum Miejskie Szttygarka w Dąbrowie Górniczej (Dąbrowa Górnicza Mining Foremen Municipal Museum).....	287
301. Muzeum Przemysłu i Techni w Walbrzychu (Walbrzych Museum of Industry and Technology).....	289
302. Muzeum Śląskie w Katowicach (Katowice Silesian Museum).....	289
303. Szyb Bończyk (Bończyk Shaft)	292
304. Szyb Maciej (Maciej Shaft)	292
305. Szyb Wilson (Wilson Shaft).....	294
Romania	295
306. Muzeul mineritului Petroșani (Petroșani Mining Museum)	295
Russian Federation	297
307. Gukovskiy Muzey (Gukovo Museum)	297
308. Korkinsk Shakhtnogo (Korkinsk Coal Mine).....	299
309. Krasnaya Gorka (Red Hill).....	299
310. Muzey Istorii Razvitiya Gornogo Proizvodstva (Museum of the History of Mining Development).....	300
311. Sankt-Peterburgskiy Gornyy Universitet (Saint Petersburg Mining University)	300
312. Ugol'noy Mir Neryungri (The Coal Mining World of Neryungri).....	303
313. Vorkutinskyy Muzeyno-Vystavochnyy Tsentr (Vorkuta Museum-Exhibition Centre).....	303

Serbia	306
314. Senjski Rudnik (Senje Coal Mine).....	306
Slovak Republic	308
315. Hornonitriansky Banský Skanzen (Hornonitrianskeho Open Air Mining Museum).....	308
Slovenia	309
316. Muzej Premogovništva Slovenije (Coal Mining Museum of Slovenia).....	309
South Africa	311
317. MuseuMAfricA (formerly the Africana Museum).....	311
318. Talana Museum	311
South Korea	314
319. Boryeong SeokTan BakMulGwan (Boryeong Coal Museum)	314
320. Mungyeong SeokTan BakMulGwan (Mungyeong Coal Museum)	314
321. TaeBaek SeokTan BakMulGwan (Taebaek Coal Museum).....	315
Spain	317
322. Centro de Interpretación de la Minas de Aliaga (Centre for the Interpretation of the Mines of Aliaga).....	317
323. Centro de la Interpretación de la Minería (Centre for the Interpretation of Mining)	317
324. Museo de la Mina de Arnao (Arnao Mining Museum).....	318
325. Museo de la Mina de Mequinenza (Mequinenza Mining Museum)	319
326. Museo de la Minería de Puertollano (Puertollano Mining Museum)	321
327. Museo de la Minería y de la Industrie de la Industrie de Asturias (Museum of the Mining and Industry of Asturias).....	322
328. Museo de la Siderurgia y Minería de Castilla y León (Museum of Iron, Steel and Mining of Castile and León)	324
329. Museo Minero de Escucha y CIM [Centro Interpretativo Minero] Pozo Pilar (Escucha Mining Museum CIM [Centre for the Interpretation of Mining] and Pilar Shaft)	326
330. Museo Minero de la Comarca Andorra-Sierra de Arcos, MWINAS (Mining Museum of the Andorra-Sierra de Arcos región, MWINAS)	328
331. Museo Minero de Utrillas (Utrillas Mining Museum).....	330
332. Museu de les Mines de Cercs (Museum of the Mines of Cercs)	332
333. Parque Minero (Mining Park)	332
334. Pozo Julia de Fabero (Julia Shaft of Fabero).....	335
335. Pozo Sotón (Woodland Shaft).....	336
336. Surroca Museo de la Minería del Carbón (Surroca Coal Mining Museum).....	338
Sweden	339
337. Gruvmuseet Bjuv (Bjuv Mining Museum)	339
338. Nyvångs Kolgruva Museum (Nyvång Colliery Museum).....	340
339. Tekniska Museet (Technical Museum)	341
Switzerland	343
340. Bergbaumuseum und Besucherbergwerk (Mining Museum and Visitor Mine)	343
341. Bergwerk Riedhof (Riedhof Mine).....	343
Taiwan	344
342. Hóudòng Méikuàng Bówùyúánqū (Houtong Coal-Mine Ecological Park).....	344
343. Jīngtóngkuàngyè Shēnghuóguǎn (Jingtong Mining-Industry Life Pavilion).....	346
344. Xīnpíngxī Méikuàng Bówùyúánqū (New Pingxī Coal-Mine Museum)	346
Thailand	349
345. Pipitaphan soon thanhin lignite sukxa (Muang Mae Moh) Chalermprakiat Prabaat Somdet Prapokklao Chaoyuuhua (Mae Moh Mine Museum – Lignite Study Centre, in commemoration of His Majesty King Prajadhipok).....	349

Turkey	351
346. Karaelmas Maden Şehitleri Müzesi (Karaelmas Mine Martyrs Museum)	351
347. Zonguldak Maden Müzesi (Zonguldak Mining Museum).....	353
Ukraine	354
348. Muzey Istoriyi i Trudovoy Slavy Chao DTÉK Pavlohraduhol' (Museum of History and Labour Glory of Joint Stock Company DTÉK Pavlogradcoal)	354
349. Shakhterskaya Slava Muzey (People's Museum of Mining Glory).....	355
United Kingdom	358
350. Aber Valley Heritage Museum.....	359
351. Aberfan Disaster Memorial and Graves.....	360
352. Apedale Heritage Centre	360
353. Ashington Colliery Trail	363
354. Aylesham Heritage Centre	363
355. Barnsley Main Colliery (formerly the Oaks Colliery).....	366
356. Beamish, the Living Museum of the North.....	368
357. Bedwellty Park.....	370
358. Bellingham Heritage Centre	370
359. Bersham Colliery Mining Museum.....	370
360. Black Country Living Museum.....	372
361. Brandy Bottom Colliery.....	374
362. Cefn Coed Colliery Museum	376
363. Chatterley Whitfield Mining Museum	378
364. Chislet Colliery	379
365. Church Farm Colliery	380
366. Clipstone Colliery Headstocks.....	380
367. Dean Heritage Centre.....	380
368. Durham Cathedral Miners' Memorial.....	383
369. Durham Mining Museum.....	386
370. Easington Colliery Memorials	386
371. Elsecar Heritage Centre	389
372. Elsecar Old Colliery.....	390
373. Elvington and Eythorne Heritage Centre.....	393
374. Haig Colliery Mining Museum	395
375. Hartley Colliery Disaster Memorials	396
376. Hemingfield (formerly Elsecar Low) Colliery.....	398
377. Hopewell Colliery Museum	400
378. Huskar Pit Disaster Memorials	402
379. Ironbridge Gorge Museum.....	404
380. Kent Mining Museum	406
381. Lancashire Mining Museum (formerly Astley Green Colliery Museum).....	407
382. Ledston Luck Colliery	409
383. Lofthouse Colliery Disaster Memorials	411
384. Mining Heritage Centre	411
385. Museum of Cannock Chase	414
386. National Coal Mining Museum for England (formerly Yorkshire Mining Museum).....	416
387. National Mining Museum Scotland (formerly Scottish Mining Museum).....	419
388. <i>National Museum Wales: Big Pit National Coal Museum (formerly Big Pit Mining Museum)</i>	422
389. <i>National Museum Wales: Saint Fagans National Museum of History</i>	425
390. Pleasley Colliery	427
391. Pooley Hall Colliery.....	429
392. Prestongrange Museum (formerly Scottish Mining Museum; then Prestongrange Industrial Heritage Museum).....	429
393. Ram Hill Colliery.....	432
394. Rhondda Heritage Park	432
395. Snibston Colliery.....	435

396. Snowdown Colliery and East Kent Railway.....	437
397. South Wales Miners' Museum	439
398. Summerlee Museum of Scottish Industrial Life	439
399. Sunderland Museum	442
400. Thornhill Collieries Disaster Memorials.....	443
401. Washington 'F' Pit Industrial Museum	445
402. Wentworth Woodhouse	445
403. Winding House (formerly Elliot Colliery Engine House)	447
404. Woodhorn Museum	450
United States of America.....	453
405. Alabama Mining Museum	453
406. Aldrich Coal Mine Museum	454
407. Beckley Exhibition Coal Mine.....	454
408. Beulah Mine.....	456
409. Big Brutus	456
410. Broad Top Area Coal Miners Museum	457
411. Center Mine.....	457
412. Colowyo Mine.....	457
413. Coteau Freedom Mine.....	457
414. Falkirk Mine.....	458
415. Harrison Coal and Reclamation Historical Park.....	458
416. John L. Lewis Memorial Museum of Mining and Labor.....	458
417. Kentucky Coal Mining Museum and Portal 31 Mine.....	459
418. Madrid Old Coal Town Museum (formerly Old Coal Mine Museum).....	460
419. Mid-Lothian Mines Park.....	460
420. Miners Hall Museum	462
421. Museum of Science and Industry, Chicago.....	463
422. Museum of the Coal Industry.....	463
423. Novinger Coal Miners Museum.....	465
424. Number 9 Mine and Museum	465
425. O'Gara Mine Number 12	468
426. Pennsylvania Anthracite Heritage Museum, Eckley Miners' Village and Lackawanna Coal Mine Tour.....	469
427. Pioneer Coal Mine Tunnel	470
428. Pocahontas Exhibition Coal Mine.....	471
429. Seldom Seen Tourist Coal Mine	471
430. Tour-Ed Mine	471
431. Walsenburg Mining Museum.....	472
Vietnam.....	473
432. Quốc Tế Bảo Tàng Than (Quang Ninh Museum).....	473
Concordance.....	474
Archives/library	474
Coal-mining history (as dealt with in museums).....	474
Coal-mining landscapes (including reclamation).....	474
Designated routes	474
Fossils, geological collections and coal samples	474
Headgears and winding towers.....	474
Machinery/technology (including displayed, opencast or stored large-machine collections).....	475
Memorials, coal-mining disasters and major accidents.....	475
Minewater (including filling opencast voids).....	475
Movement, on surface and underground, of coal by canals, railways, etc.....	475
Preserved surface works	475
Social history, including living conditions	475
Statutory protection, including listing by UNESCO	475
Underground (genuine).....	476

Commemorating Coal Mining Worldwide

Underground (simulated).....	476
Visitor facilities (catering, education facilities, children’s play area, shop, etc.)	476
Winding engines	476
Working conditions, including trade unions and strikes.....	476
Bibliography	477