
Contents

1	Doctor Copper and King Coal	1
1.1	Why Doctor Copper and King Coal	1
1.2	Copper: A Most Useful Metal	3
1.3	Properties that Make Copper Desirable	8
1.4	Coal: The Energy for the Industrial Revolution	13
1.5	Our Current Use of Coal	14
1.6	The Essential Properties of Coal	15
	References	19
2	Copper and Coal Resources	21
2.1	Copper Mineralogy and Formation	22
2.2	Coal Composition and Formation	30
	References	35
3	Copper and Coal Through the Ages	37
3.1	Earliest Metalsmiths	38
3.2	Out of the Dark Ages	66
3.3	The First Modern Mines	92
3.4	The Age of Electricity	110
3.5	The Mega Mines	136
	References	146
4	The Future for Copper and Coal	157
4.1	Consumption of Copper and Coal Since 1940	157
4.2	Defining Sustainability	158
4.3	Sustainability Predictions Based on Reserves	161
4.4	Evaluating the Sustainability of Copper and Coal	170
4.5	Sustainability of Coal Production	173
4.6	Sustainability of Copper Production	176
4.7	Conclusions	182
	References	183
	Glossary	187
	Index	191

Metals, Energy and Sustainability

The Story of Doctor Copper and King Coal

Golding, B.; Golding, S.D.

2017, XIX, 196 p. 80 illus., 68 illus. in color., Hardcover

ISBN: 978-3-319-51173-3