

Journal of Australasian Mining

History

Volume 3

September 2005

TABLE OF CONTENTS

REFEREED	Pages
DAVID BRANAGAN <i>Seeking Hidden Millions - Metallurgists and the Broken Hill Lode</i>	1 - 16
PETA CHAPPELL <i>Tales of Merton's Reward: the gold that Fred won</i>	17 - 33
MEL DAVIES <i>Taking coals from Newcastle - smelting location and fuel costs at Kooringa, South Australia in the 19th century</i>	34 - 57
RUTH KERR, OAM <i>Ruffshell Street and the Tin Mill at Rocky Bluffs on the Stannary Hills Tramway, north Queensland, 1903 to 1920s</i>	58 - 73
KEN McQUEEN <i>The Mount Boppy Gold Mine, NSW: A Leader in its Day and More to Come</i>	74 - 96
DIANE MENGHETTI <i>Bowen Coke Works: State Enterprise or State Subsidy?</i>	97 - 114
UNREFEREED	
JIM ENEVER <i>Victoria's other Eureka, The Conflict over Mining Leases on the Mount Alexander Goldfield</i>	115 - 137
PHILIP HART <i>Self-Confidence, Self-Promotion, and Self-Delusion: A Case Study of a Saviour Who Failed</i>	138 - 156
BRIAN R. HILL <i>Reefton's Forgotten War Hero: Mining Engineer A. Winter Evans</i>	157 - 170
R. KEITH JOHNS <i>Uranium in South Australia – Politics and Reality</i>	171 - 184
JAMES A. LERK <i>Robert Gray Ford - A man before his time!</i>	185 - 192
ELEANOR SWENT (Keynote address 11th AMHA Conference, Bendigo, 28 July 2005) <i>Yanks and Aussies: A Symbiosis. A Look at Some Illustrative Careers</i>	193 - 204
ARCHIVE/SOURCE NOTES	
ROBERT W.P. ASHLEY <i>Mining the Victoria Government Gazette</i>	205 - 211

BOOK REVIEWS

LINDA RHODES, *Two for the Price of One. The Lives of Mining Wives*
Reviewer: Lenore Layman, Murdoch University 212-214

DAVID JOHNSON, *The Geology of Australia*
Reviewer: Ken McQueen, University of Canberra 214-216

AUTHOR DETAILS AND ABSTRACTS OF ARTICLES

ROBERT ASHLEY: *Mining the Victoria Government Gazette.*

Retiring early from the State Electricity Commission of Victoria he completed a Master's degree in 1994. He has been active in historical circles for 45 years and has published several volumes. He served on the committee appointed to build the Gold Museum at Ballarat and in 1976 with Peter Staughton was awarded an Architectural Citation for the history of iron ore mining and smelting at Lal Lal near Ballarat.

This paper is a description of creating a database and comprehensive index of applications to register mining companies under limited liability Acts in Victoria. This work includes shareholders, legal managers, witnesses to signatures and mining companies covering Australia, New Zealand, Asia and the Western Pacific. The paper expands upon projected lines of research using the database.

DAVID BRANAGAN: *Seeking Hidden Millions - Metallurgists and the Broken Hill Lode*

After stints in government and industry, Professor David Branagan spent most of his career at the University of Sydney, specializing in teaching engineering geology and field studies. He retired in 1989 and is presently an Honorary Research Associate, researching the history of geology and mining.

The Broken Hill Orebody, with its complex mineralogy, caused treatment problems, and there was always interest in improving the recoveries of the metals. This paper outlines the work of three metallurgists: William John McBride (1879-1970), Thomas Andrew Read (1886-1972) and George Kenneth Williams (1896-1974), who made significant metallurgical contributions. Their work was interwoven, McBride and Read through the Broken Hill South Company, McBride and Williams through Broken Hill Associated Smelters.

PETA CHAPPELL: *Tales of Merton's Reward: the gold that Fred won*

Peta Chappell is a former exploration geologist. She is currently teaching mineralogy and mining to extractive metallurgy students at Murdoch University whilst completing a history M.Phil. on Merton's Reward gold mine.

In March 1899 Fred Merton discovered the gold deposit which became Merton's Reward gold mine. He took the unusual step, for a prospector, of developing the mine himself, acting as mine manager, engineer, metallurgist and assayer. In so doing, he earned a special place in the mythology of gold in WA, particularly with regard to his battery and the gold won from it. Using detailed analysis of the production records for Merton's Reward, this paper assesses the efficiency of the battery and its proprietor and also explores some of the more scurrilous tales of Fred Merton and his gold.

MEL DAVIES: *Taking coals from Newcastle - smelting location and fuel costs at Koorunga, South Australia in the 19th century*

A Senior Lecturer at the University of Western Australia, Mel Davies has had a long time interest in mining history and continues to research and write on copper and gold mining.

Because it takes more than one ton of coal to smelt a similar quantity of minerals it makes good economic sense to transport the mineral to the coal rather than *vice versa*. Yet in nineteenth century South Australia, common sense appears to have been turned on its head. With no local coal supplies, the smelter erected by the Patent Copper to serve the Burra Burra Mines was situated at Koorunga 160km inland from Port Adelaide. The paper sets out to examine the reasoning behind the decision to locate at the site and to try to determine whether the decision was rational.

JIM ENEVER: *Victoria's other Eureka, The Conflict over Mining Leases on the Mount Alexander Goldfield*

Now retired, Jim Enever studies Australian mining history. His working life, in the area of geotechnical engineering and particularly in the study of in-situ stress related to excavation design saw him involved in mining research with CSIRO. This brought him into contact with many current mining operations and exposed him to Australia's mining past.

In October 1853, diggers at Fryers Creek rose up to resist the Victorian Government from giving a mining lease to the Port Phillip and Colonial Gold Mining Co. that threatened to displace them from their small claims. This brought to a head resentment simmering since the first gold discoveries in 1851. The Government backed down thereby avoiding more serious conflict but the issue did not go away, becoming caught up in the rising hostility to the license system that eventually led to Eureka.

PHILIP HART: *Self-Confidence, Self-Promotion, and Self-Delusion: A Case Study of a Saviour Who Failed*

Now retired from the University of Waikato, New Zealand, where he had taught from 1969, Dr. Philip Hart is now a Research Associate within the Department of History. He is currently writing up his research into the social history of mining in the Te Aroha Mining District of New Zealand.

Joseph Campbell, a scientist and clergyman based in Sydney, had great faith in his ability to solve a variety of scientific problems, especially geological ones. In the 1890s he moved to Te Aroha, New Zealand, to put into practice a method of treating ore he claimed to have invented, but was unwilling to accept its lack of success. Campbell was one of many potential 'saviours' who genuinely believed that they could solve the goldmining industry's problems but whose solutions failed to produce the promised results.

BRIAN R. HILL: *Reefton's Forgotten War Hero: Mining Engineer A. Winter Evans*

Early in his career Brian Hill was involved in the mining industry for some ten years when he floated several exploration companies and developed a substantial gold mine in WA. In his retirement Brian has obtained MLitt and PhD degrees.

The general manager of the Consolidated Gold Fields of New Zealand Ltd group in Reefton, A. Winter Evans, was a war hero of some distinction, having been recommended for the Victoria Cross while a teenage soldier in the Boer War. In 1912, Evans led the Consolidated group to victory in a major industrial dispute, resulting in the introduction of changes to work practices which improved productivity substantially, enabling the mines to continue operating through the next two decades when price inflation in New Zealand increased costs by some 67 per cent.

R. KEITH JOHNS: *Uranium in South Australia – Politics and Reality*

During 44 years of Government employment and until retirement in 1992 as Director General of the South Australian Department of Mines and Energy, Keith Johns was closely involved with uranium exploration and development.

This paper traces the 100-year history of the industry in South Australia where, initially, state and federal governments accepted the challenges offered and sought to maximise the benefits that might accrue. However, uranium became a divisive political issue in the 1970s and the adoption of the Labor Party '3-mine policy for uranium' in 1983 changed the momentum. It brought exploration to a halt and killed off the opportunity for enrichment associated with the potential to add greatly enhanced processed value to product from the world's largest resource. It also led to rejection of a national radioactive waste repository near Woomera.

RUTH R. KERR: *Rufashell Street and the Tin Mill at Rocky Bluffs on the Stannary Hills Tramway, north Queensland, 1903 to 1920s*

Ruth Kerr is a Principal Policy Officer on Native Title for mining and petroleum tenures within the Department of Natural Resources and Mines in Brisbane. Ruth, well known in history circles, serves on several peak body committees such as Federation of Australian Historical Societies Inc, the Professional Historians Association, the Royal Historical Society of Queensland and is on the committee of the Australian Mining History Association Inc.

This paper examines the development of a small remote frontier mining town and its school and tramway. The mines, mill and tramway were financed by a South Australian company that purchased the mines from the Irvinebank Mining Company. The development and subsequent history is typical of base metal mining investments in north Australia early in the twentieth century. Remains of the mill and tramway have now been listed on the Queensland Heritage Register.

JAMES LERK: *Robert Gray Ford - A man before his time!*

James has a deep interest in history and was a foundation member of The Bendigo Trust, the organization that helped to develop the Central Deborah Gold Mine that presents to the public an example of Bendigo's fabulous gold mining history.

Robert Gray Ford came to Victoria's gold rush in 1852 as a teenaged blacksmith. A man of immense talent and inventiveness, he designed and had manufactured numerous mining implements, his rock drill being years ahead of any others in design. Ford went on to become engineer in charge of construction for the Victorian Railways. This paper examines his contribution to the mining history, a contribution that historians have tended to overlook.

KEN McQUEEN: *The Mount Boppy Gold Mine, NSW: A Leader in its Day and More to Come*

Associate Professor in Landscape Evolution and Mineral Exploration at the University of Canberra, Ken McQueen's professional training is in ore deposit geology and applied geochemistry. He is currently the Assistant Director of the Cooperative Research Centre for Landscape Environments and Mineral Exploration.

Mount Boppy gold mine illustrates many of the developments in gold mining and processing technology from the late 19th to the early 21st centuries. First phase mining was completed in 1922 and attempts to process the tailings from this period culminated in the construction of the first carbon in pulp (CIP) gold extraction plant in Australia in 1974. More recently this technology has allowed the successful reprocessing of sands used to backfill underground workings by the early miners, as well as remnant ore, both extracted from new open pits. Modern exploration has detected additional ore.

DIANE MENGHETTI: *Bowen Coke Works: State Enterprise or State Subsidy?*

Dr. Diane Menghetti was formerly Head of the School of History and Politics and Associate Dean of the Faculty of Arts, Education and Social Science at James Cook University. Since her retirement she holds an adjunct position at JCU and works at a consultant historian.

Coke works have attracted scant attention from mining historians, despite their undoubted importance for some metallurgical processes. Indeed, many Mining Wardens and Inspectors regarded coking as a purely industrial process outside their reporting responsibilities. This paper examines the construction and operation of Bowen Coke, which was a State Enterprise from 1932 to 1988. It fits the works into the context of mining and metallurgy in North Queensland to explore some aspects of state support for mining in general and for Mount Isa Mines in particular. It concludes that Bowen Coke operated less as a State Enterprise than as a state subsidy for Mount Isa Mines.

ELEANOR HERZ SWENT: *Yanks and Aussies: A Symbiosis. A Look at Some Illustrative Careers*

Dr. Eleanor H. Swent, retired research interviewer/editor and mining historian, and currently Project Director for the Mining Series, Regional Oral History Office, University of California-Berkeley, was born at the Homestake Mine; holds degrees B.A. Wellesley College, M.A. Denver University, L.I.D. South Dakota School of Mines & Technology; and holds the Rodney Paul Award from the Mining History Association (USA).

This paper draws from oral histories of six Australians and Americans whose work significantly influenced mining in both countries. Their recollections vividly illustrate important changes in the last half-century that involve a globalized economy, environmental protection, increased mechanization, care for worker safety and health, and scientific exploration for minerals.