

Journal of Australasian Mining History

Volume 8

September 2010

TABLE OF CONTENTS

REFEREED	Pages
PETER BELL and JUSTIN McCARTHY <i>The Evolution of Early Copper Smelting Technology in Australia (Part I)</i>	1 - 22
GEOFFREY BLAINEY <i>A brief history of BHP Billiton</i>	22 - 35
MEL DAVIES <i>Financing the Burra Burra Mines, South Australia: Liquidity Problems and Resolutions</i>	36 - 62
JIM ENEVER <i>'Mining for Oil in Victoria': The Lakes Entrance Oil Shaft</i>	63 - 87
KEN McQUEEN and ROBERT BARNES <i>The Maitland Bar Nugget: A Key Link to the Gold Rush Heritage of New South Wales</i>	88 - 105
UNREFEREED	
CLIVE BEAUCHAMP <i>Double Disaster: Lithgow Valley Colliery, New South Wales, 1886</i>	106 - 118
PHILIP HART <i>Joseph Harris Smallman: A prospector who became a Pakeha Maori</i>	119 - 132
BRIAN R. HILL <i>New Zealand's 1896 Mining Boom</i>	133 - 147
KEITH PRESTON <i>Mount Bischoff Tin Mines: Pioneers of Water power in the Tasmanian mining industry</i>	148 - 171
TONY WESTON <i>Mining Lower Grade Ore: Changes in Mining Technology at Mt Lyell, Tasmania, 1927-1939</i>	172 - 183
BOOK REVIEWS	
Paul Robert Adams , <i>The Best Hated Man in Australia: The Life and Death of Percy Brookfield 1875-1921</i> , Punter and Wattman Biography, Glebe, 2010. Reviewer: Alan Murray	184 - 186
John Hillman , <i>The International Tin Cartel</i> , Routledge, London and New York, 2010. Reviewer: Gordon Boyce , The University of Newcastle, Australia	186 - 188
R. Keith Johns , <i>A mirage in the desert? The discovery, evaluation and development of the Olympic Dam ore body at Roxby Downs, South Australia, 1975-88</i> , O'Neil Historical & Editorial Services, Adelaide 2010. Reviewer: Barry Cooper , University of South Australia	188 - 190
Philip J. Pells and Philip J. Hammon (Written & compiled by), with contributions from Amanda Mackie, Karen Carlson and Brian Fox, <i>'The Burning Mists of Time': A Technological and Social History of Mining at Katoomba</i> , WriteLight, Blackheath, NSW, 2009, Reviewer: David Branagan , University of New South Wales	190 - 193
Michael Waterhouse : <i>Not a Poor Man's Field: The New Guinea Goldfields to 1942 – An Australian Colonial History</i> , Halstead Press, Braddon, ACT, 2010. Reviewer: Mel Davies , University of Western Australia	194 - 196

AUTHOR DETAILS AND ABSTRACTS OF ARTICLES

CLIVE BEAUCHAMP: *Clive Beauchamp: Double Disaster: Lithgow Valley Colliery, Lithgow, New South Wales, 1886.*

Dr Beauchamp is an Adjunct Senior Lecturer at Charles Sturt University-Bathurst, NSW and holds a PhD from the University of NSW. Before retirement he lectured in History and Politics. His research interests include mining disasters, mining reform, strikes and the migration of Welsh coalminers to the Northern Coalfield, New South Wales.

Two separate accidents at the Lithgow Valley Colliery in 1886 resulted in the death of eight miners. On 13-14 February (stemming from an underground fire) three men died, whereas the second on 19 April (attributed to a 'wind blast') resulted in five fatalities. The background, critical events that led directly to the disasters and a brief history of the Lithgow Valley Colliery Company, its management and early operations are described. Evidence submitted at the Coroner's Inquests is outlined and its findings detailed, as are the proceedings, conclusions and recommendations of the Royal Commission of Inquiry. This includes examination of the conflicting evidence and theories presented, together with the Commission's censure of the management on account of 'unsafe working practices'.

PETER BELL and JUSTIN McCARTHY, *The Evolution of Early Copper Smelting Technology in Australia (Part 1)*

Peter Bell is an Adelaide consulting historian with a particular interest in mining history. Justin McCarthy is principal of the archaeological consultancy Austral Archaeology Pty Ltd, with offices in Adelaide, Sydney and Hobart.

The paper gives an overview of the evolution of copper smelting methods in Australia from the origins of the industry in the 1840s until the end of the First World War. It illustrates the overall picture with case studies of seven smelting sites which the authors have studied in the course of consulting projects. The paper is divided into two parts, the 2nd part to be published in Vol. 9 of this journal in 2011.

GEOFFREY BLAINEY: *A Brief History of BHP Billiton.*

Geoffrey Blainey completed his first book on mining history in 1954 - 'The Peaks of Lyell', published by Melbourne University Press. He has since written many more. He successively held chairs in economic history and in plain history at Melbourne University from 1968 to 1988. He has worked for long periods as a freelance historian.

BHP Billiton is the largest minerals company which the world has known. It was formed in 2001. It has three main lines of ancestry: Billiton which was a tin company founded in Holland in 1860 to mine in the Indonesian archipelago; Broken Hill Proprietary which arose after the discovery of a massive deposit of silver and lead in outback Australia in 1883; and two South African gold companies which were created in the late 1890s and, a century later, briefly owned Billiton's scattered mines and smelters.

MEL DAVIES: *Financing the Burra Burra Mines, South Australia in the nineteenth century: Liquidity Problems and Resolutions.*

Mel Davies who is an Honorary Research Fellow in the Business School, University of Western Australia, has a passionate interest in mining history and in this paper follows up on previous articles published on the Burra Burra Mines.

From 1845 to 1877, the South Australian Mining Association that owned the Burra Burra Mines exported both copper ores and copper. In the 1840s and 1850s it was noted as the richest copper mine in the world, yet this belied the liquidity problems that the Association faced in its early days. This paper examines the reasons for the problems, and also looks at the strategies undertaken by the Association to rectify this situation. Also covered are some of the cost-saving and profit maximising actions taken to look after the interest of shareholders.

JIM ENEVER: *'Mining for Oil in Victoria': The Lakes Entrance Oil Shaft.*

Jim Enever, a retired mining engineer, has published several papers on various aspects of Victorian mining and has a Graduate Diploma in Archaeology and Classics, and a Post Grad Diploma in Public History, all obtained at Melbourne University.

From 1942, a novel attempt was made to recover oil from a sand horizon at 360 m depth near Lakes Entrance in Eastern Victoria. The Lakes Entrance Oil Field was the only then known source of liquid 'well' oil in Australia. Pressed by the need for an indigenous supply of petroleum during war-time, the Commonwealth and Victorian Governments sank a shaft through the soft, water bearing strata, and drilled a number of short horizontal holes into the sand to test the oil flow. The Governments terminated their direct involvement in 1945. Handed back to private enterprise, the project was continued until 1951. By this time, it was clear that commercial production would never be achieved.

PHILIP HART: *Joseph Harris Smallman: a Prospector who became a Pakeha Maori.*

Philip Hart lectured at the University of Waikato, Hamilton, New Zealand, from 1969 to 2002. Since taking early retirement he has been a Research Associate in the Department of History, which permits him to research mining and social history at Te Aroha, at the southern end of the Coromandel Peninsula.

Tracing once prominent but now obscure miners is a challenge for historians. In the case of Joseph Harris Smallman, it is more of a challenge because he worked in both England and New Zealand, and some important details of his life were lost or never recorded. A pioneer prospector he explored amongst Maori who resented his intrusion, though he eventually became a 'Pakeha Maori', living and farming with them and occasionally prospecting untried districts but without success. His story is both typical and untypical of many prospectors and miners of his day.

BRIAN R. HILL: *New Zealand's 1896 Mining Boom.*

Retirement enables Brian Hill to indulge an enthusiasm for mining history. His main areas of research interest include gold mining in New Zealand and Australia, and the history of British investment in overseas mining.

In 1896 New Zealand experienced an unprecedented mining investment boom. During that year the number of British mining companies operating in New Zealand multiplied sixteen times from 10 at the beginning of the year to more than 160 at year's end. This influx of overseas capital caused the values of gold mining properties to briefly skyrocket; employment in the industry lifted 50 per cent; and the output of gold eventually soared. Most of the new companies failed, but the 1896 mining boom ushered in the end of New Zealand's long depression.

KEN McQUEEN & ROBERT BARNES: *The Maitland Bar Nugget: A key link to the gold rush heritage of New South Wales.*

Ken McQueen is a geologist with a keen interest in mining history. He is Professor of Geochemistry and Landscape Evolution at the University of Canberra and also an adjunct Professor at the ANU.

Robert Barnes has had a long career investigating mineral deposits in New South Wales and is currently Chief Geoscientist at Geological Survey Industry & Investment NSW where he is responsible for the economic rock & mineral collection, which includes the Maitland Bar Nugget.

The Maitland Bar nugget is the sole surviving large gold nugget from the New South Wales gold rushes of the 19th century. It was discovered in 1887 in a terrace along Meroo Creek at Maitland Bar by three alluvial gold miners. The nugget contains 313.093 ounces of gold and was purchased soon after its discovery by the New South Wales government for exhibition by the Department of Mines. It has a fascinating history and has been displayed at many exhibitions around the world. Its present value as a specimen probably exceeds \$A1m, but its heritage and scientific value would exceed this. The Maitland Bar nugget provides an irreplaceable physical link to the gold rush heritage of New South Wales.

KEITH PRESTON: *Mount Bischoff Tin Mines: Pioneers of water power in the Tasmanian mining industry.*

Keith Preston, a retired engineering geologist and geotechnical engineer, has published studies on the industrial applications of water power by the mining and manufacturing industries in Australia and New Zealand during the 19th and early-20th centuries.

Water power was used extensively on most of the Tasmanian tin mining fields, initially through the use of vertical waterwheels, and from the 1880s through the introduction of turbines and pelton wheels. This paper outlines the measures adopted by the various mining operations at Mount Bischoff to meet the power requirements over a 65-year period (1875 - 1940). The water supply systems that were established, incorporating water storage dams and water races for distribution, are also detailed.

TONY WESTON, *Mining Lower Grade Ore through Changes in Mining Technology at The Mount Lyell Mining and Railway Company, Queenstown, Tasmania from 1927-1939.*

Tony practices as a mining consultant, after a career working mainly at underground mine sites in New South Wales, Queensland, Western Australia and Tasmania, including five years at the Mount Lyell mine.

The Mount Lyell mining and smelting operation at Queenstown in Tasmania was established as a single robust economic enterprise in the early twentieth century. It was based on a high grade copper resource, following earlier separate mining developments, and mainly used underground mining methods. The development of a low grade resource was primarily driven by changes to the underground mining technologies employed, followed by large scale opencut mining in the period 1927-1939.

Erratum:

In **Clive Beauchamp**, 'Beyond Philanthropy: The New South Wales Miners' Accident Relief Act 1900', *JAMH*, vol. 7, September 2009, p. 119, Table 1, note ** should read 'Includes Mt. Kembla Disaster when there were 96 fatalities' - and not 75 as stated.