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CLIVE BEAUCHAMP: *The Bellbird Colliery Disaster, Cessnock, NSW, 1923 and the Mines Rescue Act 1925*

Dr Beauchamp is an Adjunct Associate Professor at Charles Sturt University, Bathurst, NSW. His research interests include mining disasters, strikes and reform. He is currently researching the migration of Welsh coal miners to the NSW coalfields.

In September 1923, 21 miners perished as the result of a fire and explosions at the Bellbird Colliery near Cessnock, NSW. The account, firstly traces the history and description of the mine, rescue attempts and the recovery efforts using breathing apparatus. Secondly, it identifies the various factors and influences that led to the establishment of mines rescue stations in NSW. Finally, it considers the importance of the disaster to the eventual passage of legislation in the form of the Mines Rescue Act 1925

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

Peter Bell, consulting historian and adjunct Senior Research Fellow at Flinders University has 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.

This is the second part of the paper presented in Vol. 9 of this journal in 2010. It 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 the authors have investigated in the course of consulting projects.

RALPH W. BIRRELL: *Anatomy of a Failed Miner – The Colonial Gold Company 1852-1857*

Ralph Birrell is a retired electrical engineer. His research interests include the development of mining technology and mining law in Australia.

The Colonial Gold Company was one of some fifty mining companies floated in London from 1852 to mine in California and Australia. By 1857 most had failed. The company sent two Superintendents, each with a party of miners to Australia, one to Louisa Creek in NSW and a second to Bendigo in Victoria. This paper discusses the problems encountered by each Superintendent due to the different mining laws in each colony, the problems of transport over long distances, and the difficulties in developing suitable processes to extract the gold. The company was wound up in 1857, when the available capital was spent and the shareholders refused to invest further funds.

ANNE BOTH: *From Plants and Miners Hats to Magnetic Exploders: Gutta percha in the service of miners*

Anne Both who has presented several papers at AMHA conferences on a variety of topics has mining in her family background. She has a special interest in its social and safety aspects. After a career in Nursing and Nursing Education she taught unemployed care workers, students of English in Spain and University of Third Age students Spanish in South Australia. The seeds of her interest in mining history were sown when in the late 1950s she worked in the mining town of Queenstown Tasmania.

In this paper the properties of gutta percha, and its uses in mining are examined. The sap of this tropical tree was used to create a product that could be used for a great variety of both useful and decorative purposes. Among many other uses, its insulating properties were something that was recognised by miners and which contributed to safety and cost-saving in mines around the world.

LLOYD CARPENTER, *Revealed in the Record: Thomas Logan, and origins of the Cromwell Quartz Mining Company, Bendigo, Otago*

Lloyd Carpenter, B.Sc., Dip.Tchg., Dip.Bib.Min, Grad.Dip.Arts (dist.), B.A. (hons) is a 47 year-old scholar of Ngati Toa Rangatira, English, Irish and Highland Scottish descent. He has worked in sales, the insurance industry, has taught at both an exclusive private school and a low socio-economic high school, was a Salvation Army officer and is now studying towards his Ph.D at the University of Canterbury, New Zealand.

The received narrative of the discovery of the rich quartz mine at Bendigo in Central Otago has the success of Thomas Logan, Jack Garrett, Brian Hebden and George Goodger of the Cromwell Company predicated on a fraud committed by Logan. It is an intriguing tale of a significant theft by a dishonest man in the midst of a famous gold rush to an iconic town and is found in all popular histories of the goldfield. But is it correct? Using primary sources and contemporary narratives, the evidence of Logan's actions during the early days at Bendigo is evaluated and a new conclusion reached.

P.D. GARDNER: *The Duke United Mine G.M.Co. Maryborough; Baillieu's 1897 Take-over and Outcomes*

The Author is a Gippsland regional historian who has worked mainly in the area of frontier conflict. His published works in this area include *Gippsland Massacres* (Warragul Education Centre, Warragul 1983), and *Through Foreign Eyes* (Centre for Gippsland Studies, Churchill, 1987). More recently he has written *A Gippsland Union: the Victorian Coal Miners Association 1893-1915* (Ngarak Press, Ensay, 2004) and has been researching the career of W.L. Baillieu, one of the coal capitalists. He has been the holder of a C.H. Curry fellowship, and has been awarded grants from the Search Foundation and the Victorian Ministry of Arts.

This essay is an in-depth study of the takeover of the Duke United Gold Mining Co by W.L. Baillieu's brothers and the subsequent career of the mine. It is a study of the mine capital and the somewhat questionable methods the Baillieus used to takeover and operate the mine.

NIC HAYGARTH: *Observation and the amateur geologist: the success of 'self-culture' in Thomas Hainsworth's exploration of the Mersey-Don Coalfield, Tasmania*

Nic Haygarth is a professional historian, freelance writer and Honorary Associate of the School of History and Classics, University of Tasmania. While passionate about wild places, high country and those who populate them, he is very interested in mining wherever it occurs.

The senior student of Tasmania's Mersey-Don coalfield was a self-educated ex-Yorkshire pit boy, Thomas Hainsworth (1832-96). This amateur geologist's part in establishing Tasmania's second coal horizon and an understanding of the Mersey-Don geology vindicated his lifelong habits of careful observation and voracious study, which were tenets of the popular Victorian-era pursuit of self-culture or self-improvement. Hainsworth's mentors were Scottish journalist Hugh Miller and the amateur geologist William Branwhite Clarke. His mastery of the Mersey-Don field that lay at his doorstep was proven in 1884 when diamond drilling upheld his prediction that no coal would be found beneath the Silurian limestone.

BRIAN HILL: *The 'Merican Expert' L. R. Menzies and his Role in S.A. Mining Fiasco*

Since his retirement from business Brian Hill has been able to indulge an enthusiasm for mining history. His main research interests include capitalist involvement in mining, British investment in overseas mining in the 19th century, and gold mining in New Zealand.

American 'mining expert' L.R. Menzies, the discoverer of the Menzies gold field in WA, was the promoter of a gold mining venture in South Australia that in 1898 resulted in the biggest mining fiasco in the colony's history. Menzies floated the Menzies Barossa Gold Mining Company NL which installed the biggest stamp battery in the colony on its gold mine in the Barossa Goldfield: the 40-head stamp mill dwarfed all other gold treatment plants in the colony. Designed to treat 600 tons a week, the mill ran for only a couple of weeks and crushed only 1,500 tons before it was shut down. The mine closed after a calamitous crushing result when only 30 ounces of gold rather than the anticipated 750 ounces was recovered. Instead of the expected half an ounce, the grade of ore in the mine was only 10 grains per ton, just 1/25th of the predicted grade that had been used to justify the decision to install the large mill. Menzies later wrote a curious autobiography noted for its wild claims and tall yarns.

KEN McQUEEN: *Mercury Mining: A Quick History of Quicksilver in Australia*

Ken McQueen is a geologist with a keen interest in mining history. He is Professor of Geochemistry and Landscape History at the University of Canberra.

Australia has had limited production of mercury despite an historic demand, particularly related to mercury use in gold recovery by amalgamation. The paper summarises the various discoveries of mercury deposits in Australia and the attempts to work them. These attempts were largely unsuccessful due to the limited nature of the deposits, metallurgical difficulties and the niche nature of the mercury market. Australian production is discussed in the context of world production with comments on the apparent deficiency in discovery.

KEITH PRESTON: *Mount Victoria Goldfield, Tasmania: a case of unfulfilled potential?*

Keith Preston is a retired engineering geologist and geotechnical engineer who continues to research aspects of the Tasmanian mining industry, particularly the widespread application of waterpower for mineral processing.

Development of the Mount Victoria Goldfield proceeded spasmodically between 1882-1940, initial ventures characterised by under-capitalisation and a continual requirement to reduce operating costs. The resulting dominance of water-powered processing plants is detailed and contrasted with later technological advances that included the introduction of electrically-powered pumping and winding plant into the state in 1899, when mainland finance became available. This paper also outlines the repeated attempts to establish the field as a major producer in an era when systematic exploration was not routinely undertaken.

PETER SCHULZE: *North Mount Lyell Disaster – A Miscarriage of Justice*

Peter Schulze's father, Ernie Schulze, and grandfather, 'Johnno' Pearton, both worked for the Mount Lyell Mining and Railway Company. He followed them, serving the Mount Lyell Company for 26 years as an electrical engineer and ultimately as Engineering Superintendent. During his distinguished career he was awarded a fellowship with both the Institution of Engineers and the Institute of Mining and Metallurgy. This expertise, personal knowledge of the old style Mount Lyell underground workings and fittings, and family knowledge has equipped him to assess the evidence in the North Mount Lyell fire case.

Forty-two perished in Tasmania's North Lyell mine fire in 1912. A Royal Commission singled out a miner as a possible arsonist, but evidence suggests that this was a serious miscarriage of justice. The most likely cause of the blaze was an electrical fault. Much of the evidence given by the Mount Lyell Company lawyers and its expert witnesses to convince the Royal Commission otherwise was in itself faulty, yet was accepted by the Commission. Evidence given by experienced miners, on the other hand, was discredited. Social deference and political power appear to have influenced the Commission's conduct and deliberations. Lessons can be learnt from how 50 men survived more than four days in a smoke-filled mine before being rescued.

PETER YULE: *Victorian Gold Mining and the Recovery of the Baillieu Fortune in the 1890s*

Peter Yule is a Research Fellow of the School of Historical Studies in the University of Melbourne. He has written widely on Australian economic and social history. Among his books are *The Forgotten Giant of Australian Aviation: a History of Australian National Airways*; *Ian Potter: Financier, Philanthropist and Patron of the Arts*; and *Steel Spies and Spin: the Collins Class Submarine Story*. His biography of W.L. Baillieu will be published in 2012.

W.L. Baillieu founded one of Australia's most enduring family fortunes, yet he is remembered primarily for his secret composition in 1892 following the loss of his land boom riches. How he accumulated a new fortune during the depression years of the 1890s has always been a mystery. Using newly opened records in the University of Melbourne Archives, together with records still privately held, this article argues that Victorian gold mining was the largest contributor to his regained wealth.