

AUSTRALIAN MINING HISTORY ASSOCIATION INC.
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ABSTRACTS

Paul Adams, University of New England

The Holy Day of Football: Radical Organisers and the Strike for the 44-Hour Week, Broken Hill, 1915-1916.

In 1916 the Broken Hill underground workers won a 44-hour week. At the time, the Barrier unionists regarded the result as their crowning achievement, but the strike that produced it has received relatively little historical attention. The industrial battle has tended to be overlooked because it came amidst the turmoil of the most rebellious decade in the great mining camp's history, and it has been overshadowed by the horrific industrial confrontation that ended the decade; the Big Strike from May 1919 to November 1920. This paper looks at the strike for the 44-hour week in the Broken Hill mines. The paper begins by considering events and circumstances that laid the foundations for the dispute and shaped its participants. First of these events is the Great 1909 Lockout, which enhanced the Broken Hill's militant reputation as the Gibraltar of Unionism, and drew young radicals and radical organisations to the town. Also very significant for the strike was the disruption caused by the Great War and the continuing problem of industrial diseases and accidents on the mines. The course of the strike for the 44-hour week is discussed with special attention being paid to the roles played by its highly politicised union organisers. The paper includes consideration of the important, but sometimes exaggerated, part played by the Industrial Workers of the World (IWW).

SCHEDULE BEAUCHAMP EARLY IN WEEK

Dr. Clive Beauchamp, Social Sciences and Liberal Studies, Charles Sturt University

The Dudley Mining Disaster, Newcastle, New South Wales 1898

In March 1898, a violent underground explosion at the Dudley mine resulted in the death of fifteen miners. The paper traces the history of the mine and details its operations. It describes the unsuccessful rescue attempts, the extent of structural damage, the resultant fire and the temporary sealing of the mine.

There is special focus on the Coroner's inquest and on the conclusions and recommendations of the Court of Investigation into the explosion. Evidence given at the investigation (regarding the presence of fire-damp and inadequate reporting practices) is examined. The impact of the disaster is considered, including the introduction of regulations requiring miners to be equipped with safety lamps, together with other safety issues.

Dr. Patrick Bertola Senior Honorary research Fellow) and Dr. Criena Fitzgerald (post Doctoral Fellow), University of Western Australia

Some Aspects of the Sons of Gwalia Workforce

In 1926, after a long period of political debate and discussion, the Collier Labor Government established a survey of all miners by which they sought to determine the extent of TB, silico-TB, silicosis and fibrosis among all WA miners, especially among gold miners. The first X-ray and physical examinations took place in Kalgoorlie during 1926 and subsequently at other mining centres around the State. The examinations in Gwalia of all persons employed at

the Sons of Gwalia mine took place during 1927 and the results were noted on cards that also record the results of further examinations.

By way of introduction, this paper provides some background to the decision to implement the examination programme of miners.

The paper then provides some detail from the preliminary analyses of the data collected from the records of those miners; records that not only contain data on their state of health, but also on occupations and workplaces. In particular, the paper provides a descriptive account of the workers at Gwalia, including their ethnic backgrounds, their physical and social characteristics at the time of the examination, their employment in mining and elsewhere, and the migratory patterns they followed in the course of their lives as workers in the mining industry. The paper will also provide some brief comments on the extent and nature of work related ill-health among those workers though these aspects will be more extensively outlined in future reports of our research work.

Dr. Patrick Bertola, Senior Honorary research Fellow, University of Western Australia
Mapping Gwalia (2): 1922/23 to 1964/65

In a paper presented to the Newcastle conference of the AMHA, the researcher outlined some of the findings from a survey and analysis of rates books for the mining settlement at Gwalia between 1922/23 and 1933/34. This paper takes that work through to the time of the closure of the Sons of Gwalia mine under the control of the Bewick, Moreing Company in 1964. In so doing, it extends the survey through the boom period of the 1930s and the War period, and into the period of stagnation and decline that gold mining experienced in the 1950s and 1960s,

The paper demonstrates the continuing importance of the Gwalia centre to the region and graphically illustrates the effect of the closure on the population and local government revenue for the area when the mine closed. It underscores the continuing dominance of the Sons of Gwalia Company in the area and its increasing involvement in the 'town' as it sought to address the problems of labour shortages and a perceived lack of suitable accommodation, especially after World War 2.

Analysis of data on property ownership also provides the basis within the paper for comment on the ethnicity of the population, the shifts from sojourner labour to settlers, the changes in population that accompanied the Second World War, the arrival post WW2 of migrants from regions outside those which had traditionally supplied people to Gwalia (including displaced migrants from eastern Europe), and on the changes that took place in the area during the 1950s and early 1960s as it became increasingly apparent that the end of mining was not long distant.

Prof. David Branagan, School of Geosciences, The University of Sydney
Samuel Stutchbury (1798-1859) on the fringes of New England, 1852-1853

Following the upheaval of the gold discoveries at Ophir, on Summerhill Creek northerly from Orange, which pulled Stutchbury, Government Mineral Surveyor, from his general geological survey, he was able to continue this work, on the lookout for minerals deposits, of course, but more concerned to determine the broad geological structure of the country, which would serve as a more effective basis for determining the best regions for detailed mapping for such deposits. This was a course of action that Government officials did not appreciate. They wanted a tame prospector.

Between April 1852 and December 1853, Stutchbury pressed north to Dubbo, before turning north easterly to the Warrumbungles, Gunnedah, Boggabri, the Nandewars, Narrabri, Bingara, Warialda thence into what was coming to be called Queensland.

Stutchbury's reports presented a great amount of new information, much of it on maps, some on sketches, and he made a considerable collection of rocks, minerals and fossils. His work is receiving increasing recognition today and this paper sets out to highlight the importance of his findings.

Mr. Christopher Carter, Australian National University

Success: The Measure of a Mine?

Success: 1. the favourable or prosperous termination of attempts or endeavours, 2. the gaining of wealth, position or the like. *Macquarie Dictionary*, 1985.

This paper seeks to demonstrate that mining ventures can be deemed 'successful' without producing the profits that were often the goal in the first instance. The numerous smaller works that are common throughout the Australian landscape, and rarely mentioned in its history, collectively contributed to economic gains while often providing a livelihood for miners and their families. By using four case studies, each successful in a different way, this paper will argue that the output, profit and return on investment should not be the sole measures of a mine.

Mr. Greg Drew, Senior Geologist, Mineral Resource Group, Primary Industries and Resources SA

South Australia's new mining boom – is history being repeated?

South Australia's record breaking mineral exploration activity is translating into a mining boom. Minerals are now South Australia's largest individual export item for the first time since 1850, earning more than \$1.7 billion in the last financial year. The majority of this comes from the world-class Olympic Dam Mine but there are a number of developing mines. Mining now directly employs more than 10,000 people and it has been predicted to be major driving force in the State's economy for the next 30-40 years. This is a case of history being repeated as South Australia's early economic development also relied heavily on the mining industry.

South Australia's first mining boom began in 1841, with the accidental discovery of silver-lead ore at Glen Osmond on the edge of Adelaide. By 1850, with the mining of copper at Kapunda and Burra, South Australia had become a major mining location, producing 10% of world copper. The mining boom of the 1840s is now recognised as Australia's earliest mining era – a decade when South Australia processed virtually all of Australia's metalliferous mines. The discoveries of copper on Yorke Peninsula in the early 1860s brought further economic prosperity which waned after the 1870s.

This early mining boom also had significant impacts on:

- Immigration and in particular skilled miners from Cornwall
- Settlement patterns due to the first major decentralisation away from Adelaide
- Infrastructure especially transport networks.

These impacts are clearly evident today and will be identified in the paper.

Mr. Jim Enever

'Another Broken Hill': The Mount Deddick Silver-Lead Field

The Mount Deddick mineral field in far East Gippsland, Victoria was discovered in 1896. Soon after discovery it was being promoted as "another Broken Hill", promising riches that would help the Victorian economy recover after the crash of the early 1890s. The discovery was made at a critical time when investment in Victorian mining was going through a resurgence after several years in the doldrums while investors concentrated on booms such as

Broken Hill and Mount Lyell. The relatively large size of the field, coupled with the timing, meant that it would inevitably attract the interest of promoters and investors. From discovery in 1896 to 1898, the field was strenuously promoted by several members of the Melbourne Stock Exchange, with a large number of satellite properties being floated around the group of leases held by the original Mount Deddick Silver-Lead Co. This activity went on despite the very conservative view of the field's worth offered periodically by the Victorian Geological Survey. By the end of 1898, prospecting on the field's multitude of thin elongated lodes had all but ceased and investors had generally 'done their dough'. Rather than proving to be 'another Broken Hill', Mount Deddick had in fact proved to be another Victorian mining bubble.

Dr. Nic Haygarth, Honorary Associate of the School of History and Classics, University of Tasmania

Pen-pushers with pans: 20th century Tasmanian osmiridium mining

In 1914 two million fountain pens were produced world-wide. By tipping the world's biggest osmiridium producer, Russia, into revolution and civil war, World War I (1914-18) gave Tasmania a monopoly on Osprey metal, osmiridium, used almost exclusively for the nibs of gold fountain pens. Since nearly all the metal was recovered from detrital or alluvial deposits in streams, osmiridium fields such as Savage River, south-west of Burnie, and Adamsfield, west of Hobart, remained diggers, fields, not capitalists, worked by individual claim-holders and small parties. Osmiridium buyers took advantage of diggers, physical isolation and their failure to present a united front.

Two-thirds of Tasmanian osmiridium was won at Adamsfield, but perhaps the most interesting developments were on the West Coast. At Bald Hill (now Caudry's Hill), William Caudry tried to extract osmiridium by crushing the host rock, serpentine. At Burnt Spur, a 120-metre diversion tunnel allowed the bed of Savage River to be attacked with pick, shovel or gelignite. Hobart novelist Marie Bjelke Petersen chose Burnt Spur as the setting for her 1923 romance *Jewelled Nights*, the silent movie of which reputedly played to 300,000 Melbournians. The American launch of the ball point pen in 1945 killed the Tasmanian osmiridium industry just as surely as a Hollywood budget killed *Jewelled Nights*, the flawed attempt to launch a Tasmanian movie industry.

Dr. Adrian Hutton, University of Wollongong

Safety in Coal Mines – What drives improvement?

Occupational Health and Safety issues are important in all work place situations in Australia and mines are no exception. A previous study of the statistics at Glen Davis kerosene shale mine indicated that patterns in Occupational Health and Safety practices and policy need a forcing mechanism. In the same study a review of the accidents at one of Australia's earliest 19th kerosene shale (oil shale) operations, Joadja Creek, showed that accidents affected not only the miners and the downstream process workers but the community at large. Things are no different today.

This paper looks at two relatively recent coal mine disasters in New South Wales - the Appin explosion that killed 14 men in 1978 and the Gretley water inrush accident that killed four men in 1996. Although the inquiry reports published after the accidents pointed to a number of poor practices, in both cases the legislation governing coal mines was probably changed as much in response to public opinion and government reaction to adverse findings, as to the need for the introduction of better practices. For one of the case studies the changes introduced appeared to be extremely biased towards some of the participants in the work place. In both cases cited in this presentation, the changes to Occupational Health and Safety policy and practice followed fatalities. Changes in work practices appear to be an inevitable

consequence of accidents involving fatalities and more so if high profile publication follows the accident.

Kevin Kakoschke, OAM: President: Radium Hill Historical Assn.

Radium Hill: 'From Bindii to Boom Town'

Modern mining towns don't just happen, they're planned to maximize the natural, physical and aesthetic qualities of a location divorced from the actual mine site. However the joint need for services including the provision of water, power, transportation, accommodation and communication justify their planning, costing and development as an integral part of the overall mining project.

This version of the Radium Hill story will highlight the development of these services and the men, materials and machines brought together to action the plans formulated to create a state of the art mine and town in a harsh desert environment.

Shortage of materials, manpower, and the tyranny of distance in the early 1950's were just some of the obstacles to be overcome. Although Radium Hill was a South Australian Government project, other States, the Commonwealth, British and American governments also provided resources, for example, water from New South Wales and spare Australian Army tank engines to drive electricity generators.

A very astute State Government Premier, Sir Thomas Playford, was fortunate in having a young 'workaholic' Director of Mines, Sir S. Ben Dickenson to recruit and head a team of outstanding 'young Turks' whose specialist knowledge and 'can do' approach ensured the project's success.

Dr. Ruth Kerr, OAM, Department of Natural Resources and Water, Queensland

Aldershot smelters, Queensland

In 1889 an extremely competent north American manager, Ernest A. Weinberg, was appointed to manage the internationally financed Queensland Smelting Company Limited's smelter at Aldershot, on the north coast railway, just west of Maryborough. The smelters were established to treat Queensland's base metal concentrates and gold ores. Primarily they were lead smelters equipped for calcination of lead/silver ores. The smelters pre-date the north Queensland smelter investments except for the short-lived Cloncurry copper smelter in 1884 and the privately owned tin smelter at Irvinebank. The Aldershot smelter was sustained mainly with supply from Ravenswood, but was seldom profitable. The paper explores why the Aldershot smelter was located at Maryborough far away from the mines they were meant to serve and how the works were financed from 1889 to closure in 1906.

Mrs Leonie Knapman

Transport, Mining and the Blue Mountains of NSW.

The Blue Mountains west of Sydney was a major impasse to development of the mountains and the territory to the west. The mountains provided a major obstacle to the early settlers until Blaxland, Wentworth and Lawson conquered the ridges; the mountains were a major obstacle to the development of the western pastures, they were a major obstacle to the development of the western rail system and they were a major obstacle to early shale and coal mining.

The early kerosene shale and coal operations in the Blue Mountains encountered many problems associated with transport, because they were located within deep valleys or in their steep sides and the first problem to solve was how to get the products from the mines to the top of the valleys.

Transporting the products to market then presented obstacles which included distance, cost and efficiency of transport because it was taken across the mountains by bullock and

horse drawn wagons until the advent of railway in the middle 1800s. The Railway revolutionised transport, although some areas still could not be reached by rail.

Because of the mountainous area around Glen Davis it was unreachable by rail and to overcome the problem of transport they refined and produced their own petrol on site and then piped it 52 kilometres to Newnes Junction and the main railway line over the mountains to Sydney and other outlets.

This paper will case study some of the early mines and their modes of transport in the Blue Mountains.

Dr. Barry McGowan, ANU

The Legend of Lasseter's Reef – Fact or Fiction?

There is no story of gold-seeking in Australia where myth, legend and gold-seeking are so intricately interwoven as that of the ever elusive Lasseter's Reef - Australia's last El Dorado. The story lines are so blurred that it is hard even today to distinguish fact from fiction. One expedition after another has ventured into one of the most inhospitable regions of Australia - the centre of the continent – dry, dusty and unforgiving. Not a speck of gold has been found but still the mystery persists. In this paper I discuss the background to the ill-fated Lasseter's reef expedition, the making of the legend and the ongoing debate between the true believers and the doubters, including a little known link between the Lasseter story and tales of pirate's gold in Victoria.

Dr. Ken McQueen, REHS, University of Canberra

A thirsty and confusing diggings: the Albert Goldfield, Milparinka-Tibooburra, northwestern NSW

In the late nineteenth century, the Grey Ranges in far northwestern New South Wales were the scene for one of the thirstiest gold rushes in Australia. From 1880 to 1882 a succession of discoveries and rushes established the Albert Goldfield, covering an arid, 80x16km tract extending from Mount Browne to Tibooburra. These alluvial diggings were amongst the last discovered in New South Wales and the first in the arid outback. They were 'poor mans' diggings where individual prospectors or small parties could hope to win payable gold without large amounts of capital for complex plant and equipment. Hopeful miners were attracted from all parts of the colony, as well as other areas of Australia, particularly South Australia. Most of the alluvial gold was found near the surface and mined by 'raking' the shallow gullies overlying the bedrock that formed the isolated ranges. The very low and intermittent rainfall meant that water was often scarce for gold washing and drinking. Much of the gold was extracted by dry blowing. The prospectors were confused by the occurrence of gold in widely scattered patches with no clearly defined leads or deep leads. Early attempts by to find these were unsuccessful or they found deeper wash generally too poor to pay or too hard to easily mine. Some good deep leads were eventually found, but were abandoned due to flooding water and lack of capital. Gold-bearing quartz reefs were also found, but the cost of developing these in this arid and remote region proved too much for the small companies set up. The remoteness of the field created supply problems resulting in periodic famine, illness and death when the teams could not get through due to drought or rare boggy conditions. Despite the difficulties the goldfield gradually developed and by late 1882 four townships were established to service the miners. During the early rushes a floating population of up to 2000 worked the field, but it never proved fabulously rich. Apart from a few small revivals and ongoing fossicking, mining largely petered out by 1896. Total recorded gold production up to 1945 was 63,327 ounces. The Albert Goldfield provided an early model for other goldfields in arid Australia, particularly in Western Australia.

Nina Netherway and Zelda Martin

Art in Mining History Research

The role that art can play in mining history research has often not been well understood. There were many artists portraying life on the Australian goldfields of whom S. T. Gill is perhaps one of the most well known. His sketches and watercolours provide a knowledge of conditions on the early goldfields, and of the methods used in alluvial and deep lead goldmining.

However, there is much to be learnt from the paintings and lithographs of a number of other artists. These will be used to illustrate various aspects of the role that art can play in understanding aspects of mining history such as the essential elements of quartz mining, events associated with mining such as Eureka, mining town development, the degradation of the Australian bush caused by mining, and the appalling conditions under which miners, particularly coal miners, were required to work.

However the major part of the paper will concentrate on an exhibition of oil paintings by Arthur Jenkins entitled *The Art of Gold Mining*. These are on display in the Ballarat Gold Museum (a part of The Sovereign Hills Museums Association). The 47 paintings (most of which are on display) were commissioned by Rio Tinto in the 1980's and feature images of Ballarat and district quartz mines in the nineteenth or early twentieth century. Rio Tinto donated the collection to the Gold Museum late last year. The paintings were based on earlier small sketches and photographs (some of which will be used as illustrations).

Images have been shown to be extremely powerful, and this paper concludes that art has much to offer researchers in mining history.

Prof. David Branagan, School of Geosciences, The University of Sydney

Samuel Stutchbury (1798-1859) on the fringes of New England, 1852-1853

Following the upheaval of the gold discoveries at Ophir, on Summerhill Creek northerly from Orange, which pulled Stutchbury, Government Mineral Surveyor, from his general geological survey, he was able to continue this work, on the lookout for minerals deposits, of course, but more concerned to determine the broad geological structure of the country, which would serve as a more effective basis for determining the best regions for detailed mapping for such deposits. This was a course of action which Government officials did not appreciate. They wanted a tame prospector.

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Stutchbury's reports presented a great amount of new information, much of it on maps, some on sketches, and he made a considerable collection of rocks, minerals and fossils. His work is receiving increasing recognition today and this paper sets out to highlight the importance of his findings.

Mr. Peter O'Donohue, University of New England (MA student)

Mining the Rocky River Goldfield, NSW, 1850-1900

This paper presents the early results of a study of alluvial goldmining endeavours on the periphery of the Rocky River goldfield (Uralla, NSW) between 1850 and 1900. In particular it examines the construction, use of, and reliance upon, water races for washing and sluicing purposes. The initial impetus for the study comes from a local oral history of 'a Chinese aqueduct built to take water to the goldfield'. The research strategy combines detailed field survey methods with an investigation of primary sources, which include newspapers, maps and historical surveys to question the validity of the oral history statement.

The importance of this study derives from the relatively pristine condition of sections of the material remains of the water race and its associated features. Substantial areas of the main Rocky River goldfields have been subject to intensive agricultural practices since mining ceased and are now threatened by expanding urbanisation. The recording of the alluvial mining area that has remained largely intact since it was abandoned will contribute to our understanding of small-scale, labour-intensive, capital-deficient undertakings of the 19th century.

This study will add to the small corpus of literature relating to the Rocky River goldfield, providing a basis for local heritage recommendations. It will complement Barry McGowan's work on the southern goldfields.

Dr. John S. Ryan, University of New England

Thomas Browne as the Social and Political Historian of 19th century (Australian) Goldmining

T.A. Browne (1826-1915), better known as Rolf Boldrewood, Australian frontiersman and novelist, is rightly renowned for his frontier reportage; the *Guardian* called his *Robbery Under Arms* a tale in which the writer was 'drawing upon his memory rather than his imagination'. Browne, on the pastoral frontier in Western Victoria from 1844, was closely observant of the unsettling impact of the gold discoveries of 1851 on that colony, and himself a police magistrate and mining warden at the rich Gulgong field from 1870, would make much use of his goldfields impressions and experiences in five of his novels, as well as in various essays. The prime example of his recordings was the serial, 'The Miner's Right', appearing from 3 January 1880, with 'the full cast of a mining town ... commissioner, police inspector, bank manager, ... shopkeepers, miners, trouble makers, radicals, criminals'. The plot encompassed dramatic events at Eureka, and presented as contemporary (that is, in 1855) the historical anti-Chinese riots at Lambing Flat of 1861.

In all of Browne's 'goldfield' novels, the starkness of the life, the colourful range of miners, their lifestyle and social life, and the political /demographic implications of the influx and movement of populations, are all subtly treated. Equally vivid is the treatment of the hopeful arrivals from the northern hemisphere, 'adventurers from all lands' and 'armies for Eldorado', yet all so naive and ill-prepared, for they were 'the great Club of the unsuccessful'. Browne's novels also contain numerous passages on the multiracial and egalitarian mass of the miners' society, their relatively orderly behaviour, the technical aspects of extracting gold, and about the deeper meaning of the gold discoveries for the Australian colonies and for their development towards a new nation. For gold would make a 'Freshland', noble, with a vigorous intermingling of the races to produce a 'borderer' mix of the highest physical and mental vigour. This paper will examine Browne/Boldrewood as a commentator on Australian goldmining, and will reveal that in these technical and social matters, he may be deemed an ethnographer of the highest order.

Dr. Jan Wegner, School of Arts and Social Sciences, James Cook University, Cairns

Blowing Things Up: explosives practices on North Queensland goldfields

The use of explosives in mines has attracted historians' attention mainly in the area of workplace safety. There has been less written on everyday practices and the problems associated with the adoption of new types of explosives. This paper examines the kinds of explosives in use in North Queensland gold mines before World War II, firing practices, and the types of ventilation used to clear dust and fumes after firing. It found that the miners were willing to try new explosives but that some problems occurred in the process of changing from one type of explosive to another, creating increased risks, which indicates that safety

issues were not caused just by miners' carelessness or owners' callousness. It also found that "natural" ventilation was preferred over mechanical methods on the grounds of cost and ease of maintenance.

Cancelled

Mr. Fred Cahir, School of Business, University of Ballarat

"me no poor blackfellow now, me plenty rich blackfellow": Aboriginal people and gold mining; what were they doing?

The discovery, but not the acknowledgement in history texts, of new goldfields by Aboriginal people has become a recurrent theme in Australian gold history. Indigenous historian Robyne Bancroft, in her study of the northern NSW goldfields argued that whilst Aboriginal miners and prospectors are included among the pioneers in the newspaper reports of the gold period they 'did not receive fair treatment regarding their mineral finds'. This inattention by goldfields writers is remarkable considering the score of primary documents (newspapers, poetry, artwork, maps, government records, miner's letters) which testify to the very active participatory role Indigenous people assumed in the gold mining period. Bancroft concludes that the role of Aboriginal miners has been neglected, and it would be difficult not to agree with her. This inattentiveness to indigenous detail by many historians is puzzling. The documentary record is not reticent in this regard. There is no lack of evidence pointing to the hefty involvement of Aboriginal people on the goldfields of mainland Australia. Yet rarely do Aboriginal people win accolades or even explicit acknowledgement by non-indigenous local historians.

This paper shall demonstrate the at times pivotal role Aboriginal people played in the discovery of new gold fields, with emphasis on south-eastern Australia and their considerable participation as independent gold seekers. Moreover this paper seeks to contribute to the discussion of the level and nature of relationships which were brokered with non-Indigenous miners by briefly surveying the extent of their involvement as miners in foreign lands and interestingly other immigrant Indigenous miners.