

# Earth, wind, fire, water – gold

## Bushfires and the origins of the Victorian Gold Rush

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Douglas Wilkie

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Many historians have noticed the coincidence of the 1851 Black Thursday fires in the Port Phillip District of New South Wales (Victoria) with the beginning of the Victorian gold rush but a possible relationship between these events has not been investigated in any depth. This article will demonstrate that the gold rushes in Victoria occurred when they did in mid-1851, not simply as a reaction to gold discoveries at Bathurst, nor because of prevailing economic circumstances, but largely as the result of a sequence of events over the preceding two years. Foremost among these events was the combination of fire and flooding that occurred before the outbreak of the gold rush.

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Come, see! ... They are the four elements: fire, wind, water, and dust  
... and from them come gold and silver and copper and iron.

R Shim'on ben Yohai, 2nd century CE<sup>1</sup>

The 'discovery' of gold in Victoria a few days after separation from New South Wales on 1 July 1851 has served as a convenient marker of the end of one era and the beginning of another. The habit of thinking about the Victorian colonial past in this manner, however, has unfortunately hindered our understanding of the origins of the Victorian gold rushes.<sup>2</sup> Many of the events of 1851 were, in fact, set in motion in 1849 and

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<sup>1</sup> Raphael Patai *The Jewish Alchemists: A History and Source Book*, Princeton: Princeton University Press 1995, 162.

<sup>2</sup> See, for example, AGL Shaw, *A History of the Port Phillip District*, Carlton: Melbourne University Press 2003, 237; AGL Shaw, 'Separation and Federation', *Victorian Historical Journal* 68 (1), April 1997, 13.

earlier. In particular, an almost forgotten gold discovery in Port Phillip in 1849 was inseparably linked to the never forgotten discoveries of 1851.

The connections between these events are complex and involve not only human, but also environmental factors. This article will briefly discuss the actions and decisions of a number of individuals between 1849 and 1851 – the Governor of New South Wales, Charles FitzRoy; the Superintendent of the Port Phillip District of New South Wales, Charles La Trobe; three ex-convict jewellers and silversmiths, Charles Brentani, Joseph Forrester and Alexandre Duchene; an exiled shepherd, Thomas Chapman; and the man who was later credited with the first ‘official’ discovery of gold in Australia, Edward Hargraves.<sup>3</sup> But while these characters, and others, form the cast of the drama that played out following the 1849 gold discovery, the emphasis of this article is on the environmental setting in which that action took place – in particular that created by earth, wind, fire and water – and its influence in determining the nature and timing of the gold discoveries of 1849 and 1851.

Geoffrey Blainey has written of the ‘tyranny’ imposed by the vast distances encountered within and surrounding the Australian continent.<sup>4</sup> The distance from Melbourne to Sydney influenced government decision-making in Melbourne during the pre-1851 period when Port Phillip was still a reluctantly dependent outpost of New South Wales, and it was one of the reasons that Port Phillip residents so passionately wanted a separate and independent government. Blainey has also suggested physical distance and a sparse population as environmental and demographic factors influencing the discovery of minerals throughout Australia, but he indicated that ‘economic winds’ were ultimately more relevant in hastening or slowing minerals development.<sup>5</sup> Historians have debated Blainey’s arguments, but most investigation of the relationship between environment and gold has concentrated on the *effects* of gold mining rather than the origins of the rushes.<sup>6</sup>

There have been admirable studies of the impact of mining upon the environment; the environmental requirements of mining, such as water

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<sup>3</sup> For a full discussion see Douglas Wilkie, *The Rush That Never Started: Forgotten Origins of the Victorian Gold Rushes*, PhD thesis, The University of Melbourne 2013 (forthcoming).

<sup>4</sup> Geoffrey Blainey *The Tyranny of Distance*, Melbourne: Sun Books 1966, 139.

<sup>5</sup> Ibid, 139; Geoffrey Blainey, ‘A theory of mineral discovery: Australia in the nineteenth century’, *Economic History Review*, New Series 23 (2), August 1970, 298.

<sup>6</sup> For example, Barry McGowan, ‘Environmental effects of alluvial goldmining’ in Iain McCalman, Alexander Cook and Andrew Reeves (eds) *Gold: Forgotten Histories and Lost Objects of Australia*, Cambridge: Cambridge University Press 2001.

supply; and the impact of bushfires in general, in studies by Libby Robin, Stephen J Pyne, Donald Garden, Paul Collins and others.<sup>7</sup> Discussing the impact of mining on forests, Tom Griffiths notes that fires ‘opened up the forests, the rivers and outcrops of rock’ for prospectors after the initial gold rushes of 1851, and he speculates about whether gold seekers might have started the devastating Black Thursday fires of February 1851.<sup>8</sup> Griffiths’ question possibly eludes a certain answer, but Emily O’Gorman adds that ‘[f]loods and droughts sometimes aided the quest for gold’, citing news reports of floods revealing gold deposits along the Turon River.<sup>9</sup> Leaving aside the observations of Griffiths and O’Gorman, the historiography has been mainly concerned with the impact of mining *after* the gold rushes began.<sup>10</sup> This article will by way of contrast explore in some detail the role of environmental events – in particular drought, flood and bushfires – in facilitating the initial discovery of gold in Port Phillip in 1849 and 1851.

## 1848–1850

Contemporary newspapers, letters and books not only give detail about what people were doing or saying, but also describe the environment in which they were doing it. On the one hand Port Phillip became a popular destination for pastoralists and immigrants because of its climate and pastoral lands – hence the appellation *Australia Felix* – but on the other, it was also seen as a harsh environment by many colonists, who suffered frequent droughts, floods and bushfires.

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<sup>7</sup> Tom Griffiths and Libby Robin (eds) *Ecology and Empire: Environmental History of Settler Societies*, Edinburgh: Keel University Press 1997; Libby Robin *How a Continent Created a Nation*, Sydney: University of New South Wales Press 2007, 121; Stephen J Pyne *The Still-Burning Bush*, Melbourne: Scribe 2006, 33; Stephen J Pyne *World Fire: The Culture of Fire on Earth*, Seattle: University of Washington Press 1997, 38; Stephen J Pyne *Fire: A Brief History*, Seattle: University of Washington Press 2001, 121; Don Garden *Australia, New Zealand, and the Pacific: An Environmental History*, Santa Barbara: ABC-CLIO 2005, 77; Paul Collins *Burn: The Epic Story of Bushfire in Australia*, Melbourne: Scribe 2009; Asa Wahlquist *Thirsty Country: Options for Australia*, Sydney: Allen & Unwin 2008, 105.

<sup>8</sup> Tom Griffiths *Forests of Ash: An Environmental History*, Cambridge: Cambridge University Press 2001, 62–73.

<sup>9</sup> Emily O’Gorman *Flood Country: An Environmental History of the Murray-Darling Basin*, Melbourne: CSIRO Publishing 2012, 66. For fire exposing gold deposits, O’Gorman cites Griffiths *Forests of Ash*, 63–64.

<sup>10</sup> In her research notes for *Nothing But Gold*, Robyn Annear mentions the Black Thursday fires of 1851 at the Loddon and Pyrenees and asks, ‘Instrumental in discovery of gold?’ but the question was not discussed in her book and was left unanswered: Robyn Annear, Research Notes for *Nothing But Gold*. Accessed 22 April 2012. Available from: <http://robynanneer.com/docs/nothing-but-gold-notes.pdf>.

In February 1848 – the middle of a long, hot summer – the *Argus* correspondent at Seymour reported that ‘the whole country is parched up and ... stock are suffering from want of food and water’.<sup>11</sup> By September the weather had been ‘extraordinary, alternating between hot winds and raw damp cold atmosphere’.<sup>12</sup> Then in October – ‘the present season has been more unsettled than any previous one ... settlers will have no occasion to complain of the want of grass and water this summer’.<sup>13</sup> In the same month the *Geelong Advertiser* noted that ‘almost unceasing rains’ had caused both crops and grass to grow to ‘unprecedented height’, but at the same time urged that precautionary measures be taken by farmers to protect their crops against bushfires in the coming summer.<sup>14</sup> At Mount Macedon during November there was ‘a succession of violent storms’ and a ‘most fearful hurricane of hail and wind’.<sup>15</sup> By mid-December a brief period of fine weather was followed by ‘a wintry aspect’ in what was the ‘strangest and most changeable season ever experienced since cultivation was begun in the province’.<sup>16</sup> Nevertheless, by mid January ‘beautiful weather’ had again returned, and in February the usual hot summer dominated.<sup>17</sup> While newspaper reports might sometimes exaggerate extreme weather events, they still provide a picture of significant oscillation between flood, drought, and bushfire – and it must be kept in mind that in 1848 most of Port Phillip had been settled by Europeans for only 13 years and the variations in weather later regarded as ‘normal’ were then still seen as remarkable.<sup>18</sup> The effect of this variable weather pattern was to promote an abundant growth of grass in the months before the late hot summer set in.

Early in 1848 a shepherd named Thomas Chapman discovered gold at Daisy Hill Creek on the *Glenmona* run of squatter Charles Browning Hall, near the Pyrenees Ranges of Port Phillip. Many colonists had found random pieces of gold during the 1840s, but none knew how to recover efficiently the tiny specks that lay in creek beds all across the country, or the best way to remove the gold from the quartz in which it was often

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<sup>11</sup> *Argus*, 22 February 1848, 2.

<sup>12</sup> *Ibid*, 22 September 1848, 2.

<sup>13</sup> *Ibid*, 10 October 1848, 2.

<sup>14</sup> *Geelong Advertiser* quoted in *Argus*, 3 November 1848, 2.

<sup>15</sup> *Argus*, 1 December 1848, 4.

<sup>16</sup> *Ibid*, 22 December 1848, 2; 29 December 1848, 2.

<sup>17</sup> *Ibid*, 13 January 1849, 2; 2 February 1849, 2; 6 February 1849, 2.

<sup>18</sup> Bureau of Meteorology data for Melbourne extends back to mid 1855 and later dates in rural regions, and is not available for the 1849 to 1851 period. Available from: <http://reg.bom.gov.au/climate/data/>.

embedded. Most gave up gold hunting because it was hard work, or they simply did not know how to go about it – finding the occasional nugget lying on the surface was too much of a lottery to be considered a serious occupation. As Governor Charles FitzRoy observed, the surface gold was widely scattered and most people thought the effort to find more was not worth the time involved.<sup>19</sup> Thomas Chapman had been lucky – and in December he brought 38 ounces of the gold to Melbourne and sold it to two jewellers, Charles Brentani and Alexandre Duchene.<sup>20</sup>

Chapman took Brentani, Duchene and silversmith Joseph Forrester to the site of the discovery where they hoped to find more gold. But Duchene, recognising the difficulty of the task, decided on a different course and returned to Melbourne, leaving Brentani and Forrester to press ahead with their quest. One account of the expedition, previously unpublished in Australia, suggests that, after taking them to Daisy Hill, Chapman returned to his duties as shepherd while Brentani and Forrester ‘set to work in earnest, but soon found how ignorant they were of the means required to secure the precious metal’. Brentani ‘returned to town and procured large sledgehammers to break the stone, but it never once entered their heads to wash the dirt the nuggets were found in’.<sup>21</sup>

Breaking the quartz with sledgehammers might have retrieved some gold, but manual labour was no match for the crushing machines later used. Nevertheless, as jewellers and silversmiths, Brentani and Forrester were familiar with using heat to manipulate metals, and for this reason it might have occurred to them that fire could be used to separate gold embedded in quartz. The *Cornwall Chronicle* suggested something similar when trying to discredit the Pyrenees find as being stolen gold dust or plate ‘disfigured by being liquidized in a bush fire’.<sup>22</sup> The work continued, however, and the gold seekers eventually had

large piles of stone picked out to burn, hoping by this means to melt the gold they could see plainly enough with the naked eye. After long absence, Tom [Chapman] gave them a call, and being informed of their intention to make an immense fire, he was very much alarmed for his master’s grass, and told them in pretty strong

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<sup>19</sup> FitzRoy to Earl Grey, 11 June 1851, *House of Commons Parliamentary Papers (HCCP)*, 14, ‘Correspondence relative to the recent discovery of gold in Australia’, 8. Presented to both Houses of Parliament by Command of Her Majesty, 3 February 1852, London: HMSO 1852.

<sup>20</sup> For full details of the 1849 gold rush and sources see Wilkie, *The Rush That Never Started*.

<sup>21</sup> ‘The first discovery of gold in Port Phillip’ by ‘FTM’, *Otago Witness*, 29 April 1882, 26. This article was never republished in Australia or referred to in Australian gold rush histories.

<sup>22</sup> *Cornwall Chronicle*, 13 June 1849, 644.

language he would not permit anything of the sort, for Tom knew too well the meaning of a bush fire.<sup>23</sup>

Libby Robin has observed that Australian fire events are often 'spatially and temporally unpredictable', and such unpredictability was cause for comment by the early settlers of Port Phillip. By the mid-1840s, however, some events seemed more predictable than others and, as Charles Griffith noted in 1845, 'All parts of the country ... are exceedingly apt to catch fire in the summer time'.<sup>24</sup> The summer of 1849 was a period of extreme bush-fire danger and in December 1848 the *Melbourne Morning Herald* reported:

there has never been a season since the colonization of Port Phillip in which the native grass has been so abundant ... as a consequence, those ravages by fire which are almost of annual occurrence, may be anticipated with fearful violence ... precautionary measures are always judicious, and those who do not avail themselves of the present hint may have reason to regret their negligence.<sup>25</sup>

On Wednesday 24 January a fire was reported burning near the Loddon River but it extinguished itself after burning a few acres of 'good feed'.<sup>26</sup> Daisy Hill Creek, where Brentani and Forrester were contemplating lighting a fire, was a minor tributary of the Loddon.

The potential danger of the situation emerged in press reports. At Warrnambool, Friday 26 and Saturday 27 January 1849 'were the hottest days we have had here. The north wind blew a perfect sirocco for thirty-six hours'.<sup>27</sup> At Moonee Ponds, a farmer 'was almost ruined by the destruction of thirty acres of wheat, occasioned by the obstinacy of some draymen, who ... persisted in lighting a fire amidst the dry bush grass'. The *Herald* called on the legislature in Sydney to outlaw the lighting of fires on public roads.<sup>28</sup> But by early February 'some twenty patches of bush were on fire about Melbourne ... too much caution cannot, therefore, be exercised', and the *Herald* urged that pastoralists be found guilty of 'criminal negligence' if they failed to control the risk of bushfire on their land; advocated the ploughing of fire-breaks around properties; and called for a ban on lighting fires during the high-risk months.<sup>29</sup> The *Argus* also observed that

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<sup>23</sup> 'The first discovery of gold in Port Phillip' by 'FTM', *Otago Witness*, 29 April 1882, 26.

<sup>24</sup> Robin *How a Continent Created a Nation*, 121; Charles Griffith *The Present State and Prospects of the Port Phillip District of New South Wales*, Dublin: William Curry and Company 1845, 59–60.

<sup>25</sup> *Port Phillip Herald*, 26 December 1848, 2.

<sup>26</sup> *Melbourne Morning Herald*, 30 January 1849, 2.

<sup>27</sup> *Argus*, 6 February 1849, 2.

<sup>28</sup> *Melbourne Morning Herald*, 20 January 1849, 3.

<sup>29</sup> *Ibid.*, 8 February 1849, 2; 12 February 1849, 2.

the ‘horizon is beginning to be dimmed by the smoke from the burning bush’, and urged those in the country to take ‘immediate measures for the safety of their crops and homesteads’.<sup>30</sup>

Charles Browning Hall at *Glenmona* was acutely aware of the dangers of fire. His southern neighbour, James Hodgkinson of *Woodstock*, was in regular dispute with Hall and fellow squatter Alexander McCallum for grazing his sheep on their properties. Hodgkinson’s excuse was that his pasture had been burned by fire and he had no choice but to take his sheep across the vaguely marked boundaries near Chapman’s Daisy Hill hut.<sup>31</sup> Meanwhile, Charles Brentani and Joseph Forrester were at Daisy Hill during the hot weather of the last week of January 1849 and, despite warnings about the risk, were intent on making a fire to extract their gold. Brentani spent his early life in Italy and England; Forrester grew up in Scotland before living for a few years in London – they would have little practical understanding of bushfires. As Robin observed, Europeans were often ignorant of the power of bushfire because ‘Europe is itself a fire-starved place’.<sup>32</sup> Indeed, in January 1854 the *Argus* warned that ‘tens of thousands who know very little of what a bush-fire in Australia is, or how frightful a thing ... it may become’, had arrived in the previous two years.<sup>33</sup> The same concern was expressed in February 1855.<sup>34</sup> The warning applied with at least equal force in 1849 before Black Thursday, and it is little wonder that Chapman was alarmed by the prospect of the gold seekers lighting a fire. Brentani and Forrester both spent many years as convicts in Van Diemen’s Land – working at their trades in shops – and even then may have had little appreciation of the dangers of lighting a fire in the bush.

Coincidentally, at the very time Brentani and Forrester were at Daisy Hill, Superintendent Charles La Trobe, on his way to Portland via Cape Otway, was caught in a bushfire and had to take ‘refuge up to his neck’ in a creek.<sup>35</sup> But while La Trobe was escaping from a fire, and Brentani and Forrester were contemplating lighting one, Alexandre Duchene returned to Melbourne where he reported the gold discovery to government officials, told the story to the press, publicly displayed the gold he had

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<sup>30</sup> *Argus*, 6 February 1849, 2.

<sup>31</sup> Rita Hull *James Hodgkinson and his Life at Woodstock Station*, Bendigo: Rita Hull 1996, 20; C B Hall to Edward Grimes, 28 March 1847, quoted in Rita Hull *James Hodgkinson and his Life at Woodstock Station*, 26–27.

<sup>32</sup> Robin *How a Continent Created a Nation*, 121.

<sup>33</sup> *Argus*, 9 January 1854, 5.

<sup>34</sup> *Ibid*, 1 February 1855, 4.

<sup>35</sup> *Ibid*, 6 February 1849, 2.

purchased from Chapman, and told would-be gold seekers exactly where to find the treasure – all of which immediately started a rush of hundreds from Melbourne to the Pyrenees.

Brentani and Forrester arrived back in Melbourne on 2 February 1849, having passed hundreds of gold seekers heading towards the Pyrenees following Duchene's announcement. Charles La Trobe returned to Melbourne on 5 February and immediately despatched Captain Dana, Sergeant McLelland and all available police to take control of matters. After obtaining more details from Duchene, La Trobe sent Commissioner Frederick Powlett and his mounted troopers to assist Dana and McLelland at Daisy Hill.

Powlett's intimidating presence had an immediate effect in dispersing most of the gold seekers but after his departure the most determined returned. Sergeant McLelland had much greater difficulty, and claimed many set fire to bush to hide their tracks, creating a shortage of fodder for the police horses, and causing what Edmund Finn described as 'an intense bush conflagration'. McLelland reported that the grass was 'entirely burned up for miles around this place'.<sup>36</sup>

D C Simpson, a squatter, reported Aboriginal people burning the grass on his run at *Glenisla* 'to avoid their tracks being seen' after stealing sheep – perhaps the Aboriginal police who accompanied McLelland thought this was the motivation of the gold seekers at Daisy Hill.<sup>37</sup> Some of the gold seekers who returned to Melbourne in the second week of February also said they had 'set fire to the bush to prevent their tracks being followed', but they claimed to have seen enough to convince them they 'were in the golden country and they only await a clear field to start afresh'.<sup>38</sup> Others found 'inferior specimens of the gold ore' despite 'the vigilance of the Black Mounted Police who watched their movements with untiring zeal'.<sup>39</sup>

When Charles La Trobe later described his experience caught in the Cape Otway bushfire to his daughter Agnes, he said that though 'the whole country was a blaze', it was a blessing in disguise, for once the

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<sup>36</sup> McLelland to Dana, 17 March 1849, Public Record Office of Victoria (PROV) VPRS 4466, Box 1/5, Unregistered Papers Relating to the Native Police Corps, unit 1; 'Garryowen' (Edmund Finn) *The Chronicles of Early Melbourne 1835 to 1852: Historical, Anecdotal and Personal*, Melbourne: Fergusson and Mitchell 1888, 785.

<sup>37</sup> Samuel Carter *Reminiscences of the Early Days of the Wimmera*, Melbourne: Norman Bros 1911, 15; Geoffrey Blainey *Triumph of the Nomads: A History of Ancient Australia*, Sydney: Macmillan 1983, 77; For a discussion of Aboriginal use of fire see Bill Gammage *The Biggest Estate on Earth: How Aborigines made Australia*, Melbourne: Allen & Unwin 2011.

<sup>38</sup> *Argus*, 13 February 1849, 3.

<sup>39</sup> *Melbourne Morning Herald*, 17 February 1849, 1.



fire passed it ‘would clear away some of the impediment in our way’.<sup>40</sup> Sergeant McLelland’s scorched-earth gold hunters might have burnt the undergrowth to hide their tracks from the Aboriginal police but they might also have burnt the grass to ‘clear away some of the impediment’ in *their* way and make it easier to find the gold-bearing surface stone.

In his study of the indigenous people of Central America, Hubert Bancroft observed that they ‘burn the grass in the mountains and pick up the metal exposed on the surface in large quantities’.<sup>41</sup> While the Daisy Hill searchers were probably ignorant of such examples, it did not take much imagination to conclude that burning the grass might reveal the gold. The effect of fire, whether deliberately lit or from natural causes, in clearing the grass cover from the underlying surface deposits, and its role in assisting the discoveries not only of January and February 1849, but also of mid-1851, should not be underestimated.<sup>42</sup>

After Superintendent La Trobe and Governor FitzRoy discussed the Daisy Hill gold in March 1849 they decided to maintain a police presence at the site for several more weeks but this, and other recent discoveries, prompted FitzRoy to request a qualified minerals surveyor be sent from England. Distance and slowness of communication meant the geologist, Samuel Stutchbury, would not arrive in Sydney until January 1851; however, the 1849 discovery had triggered an ongoing search for gold in Port Phillip District, with both squatters and shepherds actively looking for the precious mineral. They were hindered by lack of knowledge and relied on the chance discovery of scattered surface nuggets. Lack of success led the sceptics to dismiss gold as non-existent or simply a hoax but those who had faith urged La Trobe to initiate a systematic search by qualified geologists.

In January 1851 Stutchbury was about to commence a survey of the Middle District of New South Wales, closer to Sydney – his appointment was a direct outcome of the 1849 discoveries – but that would do nothing

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<sup>40</sup> La Trobe to Agnes La Trobe, 26 March 1849, Neuchatel Archive, MS13354/28 NEUCH 17-22(b), State Library of Victoria.

<sup>41</sup> Hubert Howe Bancroft *The Native Races of the Pacific States of North America*, San Francisco: A L Bancroft & Co. 1886, vol. 1, 769.

<sup>42</sup> *An Act to Restrain the Careless use of Fire (Careless Use of Fire Restriction Bill)* was passed by the Victorian parliament in February 1854: *Argus*, 6 February 1854, 5. While there were frequent reports of people being prosecuted for setting fire to the bush in Australia after the 1850s, none of the reports specifically links the use of fire to gold-seeking activity on those occasions. For example, Joseph Innes was sentenced to six months’ imprisonment for setting fire to the bush at Mount Buninyong in 1877: *Australian Town and Country Journal*, 3 February 1877, 6. In 1873 S B Emmett reported having deliberately set fire to 26 miles of bush in Tasmania while on a prospecting expedition, presumably to make finding the gold easier: *Launceston Examiner*, 25 January 1873, 2.

for the Port Phillip District, which was about to be separated from New South Wales. Coincidental with Stutchbury's plans to survey the Middle District, in Melbourne Dr George Bruhn, a German physician who had worked as an assayer in the copper mine at Burra in South Australia, announced he was about to carry out a survey of the Pyrenees, Macedon and Plenty Ranges of Port Phillip District. He was supported by the Victoria Industrial Society and its patron, Charles La Trobe. However, before Bruhn could start his survey, the Pyrenees, Macedon and Plenty Ranges would be visited by something that was also a direct result of other events of 1849, and would be remembered long after Bruhn was forgotten.

In October and November 1848 the weather in Port Phillip had been described as 'very boisterous', and 'very changeable, one day quite sultry, and the next freezing'.<sup>43</sup> The heavy rainfall of 1848, followed by extreme temperatures and drought, had heightened the risk of bushfires in January and February 1849. However, by August 1849, 'the inhabitants of Melbourne were astonished at beholding the streets and housetops covered with snow to a depth of several inches, being the first occurrence of the kind since the existence of the town'. After the thaw 'the streets became almost impassable'; the Yarra was 'swollen to a considerable extent', and residents prepared for a major flood. In country areas the snow was heavier and widespread flooding occurred.<sup>44</sup> Overland mails were abandoned, sheep farmers lost new born lambs and bridges were damaged.<sup>45</sup>

Port Phillip's unusual and damaging snow storm in September was not the last surprise in store for 1849. By the end of November there was another – 'Since the year 1840 we have not been visited with so sudden a deluge of rain as within the past two days ... the rain fell in torrents, and the wind blew a perfect hurricane'.<sup>46</sup> Reports of storm damage filled the papers for days and, as William Kyle recalled, '[t]he floods of 1849, which were the result of a general rainfall throughout the colony, caused an excessively dense growth of vegetation, and much grass'.<sup>47</sup> But the floods were followed by drought and by February 1850 the land was

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<sup>43</sup> *Argus*, 27 October 1848, 4; 3 November 1848, 2.

<sup>44</sup> *Ibid*, 1 September 1849, 2; 3 September 1849, 2.

<sup>45</sup> *Ibid*, September 1849, 2; 5 September 1849, 2.

<sup>46</sup> *Ibid*, 28 November 1849, 2.

<sup>47</sup> William Kyle, 'Reminiscences from 1841 of William Kyle – a pioneer. Communicated to and transcribed by Chas Daley', Paper presented to the meetings of the Royal Historical Society of Victoria, 25 June and 3 September 1923, quoted by Janine Rizzetti. Accessed 22 April 2012. Available from: <http://residentjudge.wordpress.com/category/bushfires/>.

again ‘completely dried up’.<sup>48</sup> The *Argus* even suggested that ‘no smoking should be allowed’ along the Sydney Road to minimise the risk of fire.<sup>49</sup> The drought continued and the summer of 1850–51 was long and hot. By November 1850 Daniel Bunce described the plains of the Loddon as presenting ‘a most sterile and cheerless aspect as [if] they had lately been visited by the plagues of Egypt’.<sup>50</sup>

## 1851

On Saturday 1 February 1851, almost two years to the day after the announcement of the Pyrenees discovery, Dr George Bruhn advertised that he was about to undertake an expedition to the Pyrenees to look for ‘subterranean riches’ and asked the district’s pastoralists for their assistance.<sup>51</sup> What happened next was described by the statistician and economic historian T A Coghlan as ‘a curious prelude to the events that followed’.<sup>52</sup> But in fact, ‘the events that followed’ were made all the more likely by what happened next.

Five days after Bruhn’s announcement and after weeks of scorching temperatures, at midday on Thursday 6 February the thermometer at Charles Brentani’s shop was 110°F (43.3°C) in the shade and 129°F (53.9°C) in the sun.<sup>53</sup> Similar extremes were not reached again in Melbourne until 1876 (43.7°C in the shade), 1939 (45.6°C) and 2009 (46.4°C).<sup>54</sup> A resident of the Pyrenees arrived in Melbourne the next day and reported that ‘the conflagration he witnessed exceeded all the powers of the imagination’:

[F]or 50 miles of his route a chain of fires ran along each side of him, even to the very margin of the road he traversed, the scrub and grass were blazing ... 20 miles from town, to the Pyrenees, are traces of desolation ... Mr. John Mooney ... was proceeding in the direction of the Loddon and suddenly found his progress to be completely barred by a chain of bush fires.<sup>55</sup>

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<sup>48</sup> *Argus*, 28 January 1850, 2; Daniel Bunce, ‘Diary of a naturalist’, *Argus*, throughout May 1850.

<sup>49</sup> *Ibid*, 8 February 1850, 2.

<sup>50</sup> *Ibid*, 9 November 1850, 2.

<sup>51</sup> *Ibid*, 1 February 1851, 3.

<sup>52</sup> T A Coghlan *The Progress of Australasia in the Nineteenth Century*, London: W & R Chambers 1903, 143.

<sup>53</sup> *Melbourne Morning Herald*, 7 February 1851, 2; ‘Garryowen’, *Chronicles of Early Melbourne*, 441.

<sup>54</sup> Bureau of Meteorology data for Melbourne. Accessed 30 March 2013. Available at: <http://reg.bom.gov.au/climate/data/>.

<sup>55</sup> *Melbourne Morning Herald*, 11 February 1851, 2.



Figure 1. William Strutt (1825–1915), detail from *Black Thursday, February 6th 1851 (1864)*

State Library of Victoria

The Macedon, Pyrenees and Plenty Ranges were ablaze, and Melbourne was surrounded by fire.<sup>56</sup> The bushfires did not suddenly start and finish on Black Thursday, as it became known, for the Plenty fires had been ‘raging on the mountains for a month’ and they would continue for some time after 6 February. Although an inquest into the deaths of the McLelland family (not Sergeant McLelland) could find ‘no evidence of the origin of the fire’ – it may have been a lightning strike, or had some other natural cause – there had been people searching for gold in the Plenty Ranges since February 1849.<sup>57</sup> When Tom Griffiths asked whether prospectors might have started the Black Thursday fires, he left the question unanswered. It is certainly a possibility.<sup>58</sup> In February 1850 reports of gold in the Plenty Ranges came soon after an outbreak of fire in the same area.<sup>59</sup>

For the town dweller, the blood-red sun and low visibility were frightening – perhaps especially so for those in the town of Kilmore, near Melbourne, who, on the previous Saturday, had rushed into the streets fearing the end of the world when an unannounced eclipse of the sun occurred.<sup>60</sup> The *Geelong Advertiser* concluded ‘the calamity was one which

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<sup>56</sup> ‘Garryowen’ *Chronicles of Early Melbourne*, 443; *Argus*, 8 February 1851, 2; 10 February 1851, 2.

<sup>57</sup> *Argus*, 10 February 1851, 2.

<sup>58</sup> Griffiths *Forests of Ash*, 62–73.

<sup>59</sup> *Port Phillip Gazette*, 5 February 1849; *Argus*, 9 February 1849, 2; 20 February 1850, 2; 8 February 1850, 2.

<sup>60</sup> *Argus*, 5 February 1851, 2.

defied precaution', while Edmund Finn recalled that Mount Macedon was 'lit up in numerous places in a style that would gladden the hearts of the Druids of antiquity'.<sup>61</sup> The people of Launceston, across Bass Strait in northern Tasmania, experienced black rain and ash falling from the sky.<sup>62</sup>

For the pastoralist, the fires were catastrophic and a relief fund was quickly established. But for the gold seeker, a fire that swept away the thick undergrowth and tall dead grass was a blessing in disguise.<sup>63</sup> Regrowth of ground-covering vegetation in the Macedon, Plenty and Pyrenees Ranges would be slow. Good rains at Portland late in February brought hopes that 'the burnt ground will be covered during the winter with luxuriant feed' but that would take many more months.<sup>64</sup> Frederick Powlett reported that fires had burnt grass in the Police Paddocks at Kyneton and an increased allowance for forage for 'the next three or four months is most necessary'.<sup>65</sup>

## Hargraves and Bruhn

Edward Hammond Hargraves had spent just over a year in California during 1849 and 1850 and returned to Australia in January 1851 believing he could find gold near Bathurst.<sup>66</sup> He left Sydney on 5 February, the day before Black Thursday. George Bruhn had already announced his own expedition on 1 February, and departed from Melbourne a few days later. On 10 February Hargraves arrived at Bathurst and remained there looking for gold until early May.<sup>67</sup> By early April Bruhn had completed his exploration of the Macedon Ranges and was ready to move on to the Pyrenees, 'where gold most undoubtedly is, and where he is pretty sure to find it'.<sup>68</sup>

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<sup>61</sup> *Geelong Advertiser*, 8 February 1851, quoted in *Empire* (Sydney), 21 February 1851, 3; 'Garryowen' *Chronicles of Early Melbourne*, 443.

<sup>62</sup> *Launceston Examiner* quoted in *Argus*, 14 March 1851, 2.

<sup>63</sup> The relief committee in Geelong believed that in such a disaster, separation from NSW was essential to minimise the delay in government response: *Argus*, 12 February 1851, 2.

<sup>64</sup> *Portland Guardian* quoted in *Argus*, 22 February 1851, 2.

<sup>65</sup> Powlett to La Trobe, 18 February 1851, PROV, VPRS103/P0/1.

<sup>66</sup> For a detailed discussion on the connection between Alexandre Duchene's actions at Daisy Hill in 1849 and Edward Hargraves' tactics at Bathurst in 1851, see Douglas Wilkie, 'A man of most exemplary conduct: Alexandre Julien Duchene and Australia's gold rushes', Paper presented to Australian Historical Association Conference, Adelaide, 12 July 2012.

<sup>67</sup> Geoffrey Blainey, 'The gold rushes: The year of decision', *Australian Historical Studies*, 10 (38), 1962, 131–132.

<sup>68</sup> *Argus*, 5 April 1851, 2

When Blainey said ‘the first condition for mineral discovery was accessibility’ he was referring to factors such as distance, transportation and population distribution, and noted that most early discoveries were ‘within one mile of ... homesteads, shepherds’ huts, and ... roads’.<sup>69</sup> Yet even within these parameters, for the individual searcher accessibility is made easier or harder by the density of ground cover. When Griffiths observed that fires ‘opened up the forests’ for prospecting, he was referring to later gold seekers rather than to Bruhn’s early search.<sup>70</sup> But, as O’Gorman observed, ‘fires that tore through the Victorian ash forests in 1851, aided by drought, revealed gold deposits and allowed miners to access them easily’.<sup>71</sup> Similarly, Pyne noted that the ‘1851 Black Thursday fires coincided with the Victorian gold rush’ and ‘preceded by days a gold rush’.<sup>72</sup> That coincidence between the fires and the gold rush that followed has not been investigated in detail, yet the likelihood of a connection can be demonstrated.

Much of the area searched by Bruhn had been burned and regrowth was still minimal. In late February, near Geelong, ‘the young grass [was] just touching over with green the blackened plain’, while at Kilmore in April ‘the whole country’ was still ‘a parched and arid desert’.<sup>73</sup> At Kinglake, after the Black Saturday fires in 2009, regeneration was still only in its early stages after four months.<sup>74</sup> After the 2003 Canberra bushfires, ‘four months after the fires there was little evidence of regeneration ... it is expected that it will recover, but may take some years’.<sup>75</sup> A year after Black Thursday, when ‘thousands of gold-seekers were toiling through the Black Forest on their way to the diggings’ early in 1852, the ‘charred trunks had ... put forth a fresh display of leafage’.<sup>76</sup>

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<sup>69</sup> Blainey, ‘A theory of mineral discovery’, 300.

<sup>70</sup> Griffiths *Forests of Ash*, 62–73.

<sup>71</sup> O’Gorman *Flood Country*, 66.

<sup>72</sup> Pyne *The Still-Burning Bush*, 33; Pyne *World Fire*, 38.

<sup>73</sup> G H Wathen *The Golden Colony or Victoria in 1854*, London: Longman 1855, 93; *Argus*, 15 April 1851, 1s.

<sup>74</sup> ‘Australia through the lens: the big dry continent’, *New Scientist*, 26 August 2011. Accessed 22 April 2012. Available from: <http://www.newscientist.com/gallery/dry-australia/2>.

<sup>75</sup> Amanda Carey, Murray Evans, Peter Hann, et al, ‘Wildfires in the ACT 2003: Report on initial impacts on natural ecosystems’, *Technical Report 17*, July 2003, Wildlife Research & Monitoring, Natural Heritage Trust, Canberra, Environment ACT 2003, 12. Accessed 22 April 2012. Available from: [http://www.tams.act.gov.au/\\_\\_data/assets/pdf\\_file/0013/13702/wildfiresintheact.pdf](http://www.tams.act.gov.au/__data/assets/pdf_file/0013/13702/wildfiresintheact.pdf).

<sup>76</sup> Henry Gyles Turner *The Colony of Victoria From Its Discovery To Its Absorption Into The Commonwealth of Australia in Two Volumes, vol II. A.D. 1854–1900*, London: Longmans, Green, and Co. 1904, 334.

We have already seen how searchers at Daisy Hill in 1849 used fire to reveal the surface gold, and how governments were urged to outlaw the deliberate lighting of bushfires. But fire was still a valuable resource even when not deliberately lit and as Walter Forsythe reported in 2002, when prospecting with metal detectors in the Whipstick gold field north of Bendigo, ‘the bush is pretty thick and although there is good gold there, the locals prefer to wait for a bush fire to go through there before detecting, as it is so much easier’.<sup>77</sup> Similarly, James Flett has recorded that in 1874 ‘the eastern branches of the Morwell and Trafalgar rivers were worked for gold after bushfires had burned the whole area’.<sup>78</sup> In the mountainous ash forests, fire might have ‘opened up the forests to miners’, but, Griffiths adds, ‘in the end it chased most of them out’.<sup>79</sup> Nevertheless, during the 1840s and 1850s, before fire-lighting was regulated, as the botanist David Ashton observed, ‘The way to find the gold was to burn the country and see the quartz and see where the gold was’.<sup>80</sup> Or as Donald Clark put it in 1904, ‘The combined action of clearing and fires will enable a great deal more ground to be prospected than could have been done otherwise’.<sup>81</sup> The use of deliberately lit fire by gold seekers in Tasmania during the 1850s has also been reported by J Von Platen.<sup>82</sup> In Alaska, as in California and Australia, ‘miners used fire to clear the vegetation from their claims’.<sup>83</sup> In the early twentieth century some gold hunters at the Porcupine field in northern Ontario were ‘accused of starting fires to burn off the ground

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<sup>77</sup> Walter Forsythe, ‘Whipstick in the morning’, *Gold Net Australia Online Magazine*. Accessed 22 April 2012. Available from: <http://www.gold-net.com.au/archivemagazines/mar20/43509014.html>.

<sup>78</sup> James Flett *The History of Gold Discovery in Victoria*, Melbourne: Hawthorn Press 1970, 141.

<sup>79</sup> Griffiths *Forests of Ash*, 73.

<sup>80</sup> David Ashton, ‘Black Friday – the aftermath’. Accessed 22 April 2012. Available from: <http://www.abc.net.au/blackfriday/aftermath/dashton.htm>.

<sup>81</sup> Donald Clark *Australian Mining and Metallurgy*, London: Pitman 1904, 143.

<sup>82</sup> J von Platen, A History and Interpretation of Fire Frequency in Dry Eucalypt Forests and Woodlands of Eastern Tasmania, PhD thesis, University of Tasmania 2008, 185.

<sup>83</sup> Susan K Todd and Holly Ann Jewkes, ‘Wildland fire in Alaska: A history of organized fire suppression and management in the last frontier’, *Agricultural and Forestry Experiment Station Bulletin No 114*, University of Alaska Fairbanks, March 2006, 15, 20; Otto Nordenskjöld *The Geography of the Polar Regions: Consisting of a General Characterization of Polar Nature*, New York: American Geographical Society 1928, 190; Leslie A Viereck and Linda A Schandelmeier, ‘Effects of fire in Alaska and adjacent Canada: A literature review’, *BLM-Alaska Technical Report 6*, US Department of the Interior, Bureau of Land Management, 1980, 15, 70. Accessed: 22 April 2012. Available from: <http://www.blm.gov/pgdata/etc/medialib/blm/ak/aktest/tr.Par.8680.File.dat/TR%206.pdf>; Ted L Hanes, ‘Succession after fire in the Chaparral of Southern California’, *Ecological Monographs* 41 (1), Winter 1971, 29; Garden, *Australia, New Zealand, and the Pacific*, 77.

so they could search for the surface gold showings faster'.<sup>84</sup> Similarly, in the Canadian province of Saskatchewan, 'prospectors demonstrated the easiest way to remove this unwanted obstacle [heavy underbrush] – was simply to burn it'. In some cases the fires were 'specifically intended to lay waste to the forest so that an assessment of the area's mineral wealth could be made more easily'.<sup>85</sup>

At Daisy Hill in 1849 the gold seekers deliberately lit their fires, but in 1851 George Bruhn did not have to lay waste to the forests to find his minerals because nature did the job for him within a week of his announcement. By May he had explored the region between Daisy Hill, Burnbank and the *Clunes* station and was 'fortunate enough to discover the existence of gold'. Bruhn's plan was to return to Melbourne to give lectures about his discoveries – just as Hargraves did at Bathurst on 8 May – but before he could do that other events overtook the potential significance of his expedition, and by July further major discoveries had been announced.<sup>86</sup> While Bruhn was exploring to the north-west of Melbourne, others were continuing the search in the Plenty Ranges, which had also been cleared of undergrowth by the fires, and by early June extensive deposits of gold were reported there.<sup>87</sup> All of these discoveries occurred even before the Melbourne Gold Committee met to offer a reward for the discovery of a payable goldfield on 10 June – which itself was not simply a reaction to the Bathurst discoveries, as many historians have assumed, but a culmination of two years of interest in developing local mineral deposits.<sup>88</sup>

Yet even with the vegetation cleared, and with more efficient techniques, finding the gold was not guaranteed. As William Lewis wrote in October 1851, 'gold digging appears to be a lottery. One party will be getting many ounces in a day, while those in close proximity are scarcely procuring a particle'.<sup>89</sup> Of course, by late 1851 serious miners were clearing away the ground cover themselves, and digging below the surface. But prior

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<sup>84</sup> Michael Barnes *The Scholarly Prospector: Don McKinnon*, Ontario: General Store Publishing 2006, 41.

<sup>85</sup> Anthony G Gulig, "'Determined to burn off the entire country": Prospectors, caribou, and the Denesuliné in Northern Saskatchewan, 1900–1940', *American Indian Quarterly*, 26 (3), Summer 2002, 338.

<sup>86</sup> *Argus*, 13 May 1851, 2; *Bathurst Free Press*, 10 May 1851, 5; Blainey, 'The Gold Rushes', 132–133.

<sup>87</sup> *Melbourne Morning Herald*, 7 June 1851; *Argus*, 7 June 1851, 2; 9 June 1851, 2.

<sup>88</sup> For a full discussion of the Gold Committee Reward, see Wilkie, *The Rush That Never Started*.

<sup>89</sup> William Lewis to A & J Dennistoun, 13 October 1851, in P L Brown, *Clyde Company Papers, Vol IV, 1846–1850*, London: Oxford University Press 1959, 136.



to 1851, as Charles FitzRoy observed, ‘The specimens ... then collected, were apparently so thinly scattered over the surface of a great extent of Country that it was considered the occupation of gold-seeking would not be remunerative’.<sup>90</sup> Still, anything that made the location of those scattered surface specimens easier to find – such as the removal of the ground cover by fire, as happened at Daisy Hill in February 1849, and across Victoria two years later – would also increase the chances of winning the lottery.

Whether or not the fire and water events between 1849 and 1851 were unpredictable, they were certainly capricious. Having first assisted the discovery of gold through a hot, dry summer and the Black Thursday bushfires, Victoria’s weather then provided rain and floods. Diggers left the Plenty Ranges, ‘[s]hivering with wet and cold, and without the bread which they expected to drop on them from the trees, the gold had lost its charms’.<sup>91</sup> For La Trobe it was both a reprieve and a frustration:

The unusually tempestuous state of the weather during the whole of the month of August and the early part of September, and the heavy floods which prevailed in every part of the colony ... interposed a check on those who had already commenced to search for gold ... [and] ... made it almost impossible for the Government to ... estimate the real value of any of the alleged discoveries.<sup>92</sup>

But, after the surface gold had been revealed by fire, as O’Gorman has observed, a good water supply was the next essential ingredient if shallow alluvial mining were to be successful over the coming summer months.<sup>93</sup>

## Conclusion

A logical question arising from this sequence of events might be whether the huge influx of gold seekers to Victoria after 1852 led to an increase in bushfires related to gold digging. During the summer of 1852–53 there were, in fact, significant fires and in January 1854 the *Argus*, concerned at the arrival of ‘tens of thousands who know very little of what a bush-

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<sup>90</sup> FitzRoy to Earl Grey, 11 June 1851, HCPP, ‘Correspondence relative to the recent discovery of gold in Australia’.

<sup>91</sup> *Argus*, 11 August 1851, 2.

<sup>92</sup> La Trobe to Earl Grey, 10 October 1851, HCPP, Further papers relative to the recent discovery of gold in Australia, In continuation of papers presented to Parliament June 14, 1852, Presented to both Houses of Parliament by Command of Her Majesty, 28 February 1853, London: HMSO 1853; *Argus*, 25 August 1851, 2; *Cornwall Chronicle*, 30 August 1851, 547.

<sup>93</sup> O’Gorman, *Flood Country*, 66.

fire in Australia is', published a detailed account of the precautions that should be taken in the country districts, including the burning of firebreaks around dwellings and other important buildings.<sup>94</sup> In February 1855 the *Argus* republished the 1854 article and 'without wishing to claim ... any credit', observed that Victoria had passed through the long hot summer with relatively few bushfires. Most of the credit was given to education and to the passing of 'stringent laws' punishing anyone who lit fires.<sup>95</sup> The *Act to Restrain the Careless Use of Fire* had been passed in February 1854.<sup>96</sup>

The *Argus's* optimism was a little premature as a report from Geelong four days later described the 'ravages of the bush-fire' that had destroyed all the buildings on the run of P M Arthur, and another at the Fryer's Creek diggings where 'the inhabitants of the neighbourhood, alarmed at the progress of the flames, lighted fires around their dwellings to counteract the influence of the bushfire, and in this manner a very large extent of country has been burnt up'.<sup>97</sup> By March the *Argus* concluded that 'the greater part of these fires have their origin in the carelessness of the thousands of people who are continually travelling through the country' and that 'it must be admitted that the act of the Legislature is not sufficiently stringent'.<sup>98</sup>

There are reports of fires following gold mining in other parts of the world. During the gold rushes to Colorado in 1859, '[i]ntentionally set fires allowed prospectors to clear the vegetation to expose the rocks and geology of the landscape ... accidental fires were commonplace', and it was 'probably not coincidence that 1859 was a year of widespread forest fires in the region given the influx of miners looking for metals and very dry climatic conditions'.<sup>99</sup> The incidence of bushfire reporting in the Melbourne *Argus* rose significantly during the mid to late 1850s, but the reports did not specifically link this increase to gold mining activity but rather to a general increase in population.

Recent scholarship on environmental events and the discovery of gold in Australia sometimes touches on a relationship between the two but has not investigated it in detail. The 'discovery' of gold in Victoria in mid-

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<sup>94</sup> *Argus*, 9 January 1854, 5.

<sup>95</sup> *Ibid*, 1 February 1855, 4.

<sup>96</sup> *Ibid*, 4 January 1856, 4.

<sup>97</sup> *Ibid*, 6 February 1855, 4.

<sup>98</sup> *Ibid*, 10 March 1855, 6.

<sup>99</sup> 'Mud Lake open space management plan', Boulder County Parks & Open Space Department, 2004, 7. Accessed 22 April 2012. Available from: <http://www.bouldercounty.org/find/library/environment/mudlakemplan.pdf>.

1851 was not simply a convenient coincidence that came a few weeks after Port Phillip's separation from New South Wales. Nor was it merely the result of panic caused by a rush to New South Wales after Hargraves' announcement of gold near Bathurst. Indeed, it can be argued that there was no rush from Melbourne and no panic. The Victorian gold rushes did not, moreover, come about as the result of a £200 reward being offered by the Melbourne Gold Committee in June 1851.

On the other hand, the occurrence of the Victorian gold rushes so soon after Black Thursday appears not to have been mere coincidence. The 'discovery' of gold in Victoria in 1851 was the consequence of a sequence of events that began several years earlier and, in particular, the 1849 rush to the Pyrenees which confirmed the existence of substantial gold deposits, heightened expectations that more would be found, and prompted exploration despite a public reluctance on the government's part to encourage gold mining. When its opposition was no longer tenable, one factor that facilitated the relatively easy *rediscovery* of gold in 1851 was the convergence of four elements – earth, wind, fire and water – in a manner that allowed the pre-clearing of the goldfields by the Black Thursday fires and then, through flooding, delivered the abundant water supply necessary for successful alluvial mining. Without this combination, the discovery of gold in 1851 would have been much less likely.

## About the author

Douglas Wilkie has been an independent historian for many years. He has an MA in Australian colonial history from Monash University and is currently undertaking a PhD at the University of Melbourne titled 'The rush that never started: Forgotten origins of the Victorian gold rushes of 1851'. Recent peer-reviewed articles include the life of a Van Diemen's Land convict silversmith, and the story of a young female convict who subsequently became the heroine of an Alexandre Dumas novel.

Correspondence to Douglas Wilkie: [douglas.wilkie@hotmail.com](mailto:douglas.wilkie@hotmail.com)



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