# CHAPTER THIRTEEN

# THE FEDERATION DROUGHT OF 1895-1903, EL NIÑO AND SOCIETY IN AUSTRALIA

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The drought that devastated eastern Australia from 1895-1903 (and even longer in some regions) is the most widely recognised in Australia's European history, its importance even meriting three capitalised names the Long Drought, the Great Drought and the Federation Drought. The reputation is deserved since that prolonged period of below-average rain was the most severe to that point in Australia's European history, and the most profound until another sequence surpassed it from the mid 1990s. One aspect that has generally not been recognised, however, is that the rainfall deficit and its accompanying heatwaves, dust storms and bushfires, together with their huge impacts on the environment and human activities, were the result of three closely following El Niño events. The first stage ran from 1895-98, with the summer of 1897-98 suffering some of the most extreme recorded weather in Australia – heatwayes, bushfires and dust storms in the south-east (New South Wales, Victoria, Tasmania and South Australia) and cyclones in Queensland. The El Niño then subsided and switched into a mild La Niña later in 1898 before another El Niño in 1899-1900. After a short break, there was a profound El Niño from 1901-03 which brought the most severe period of drought to many regions and is infamous for its dust storms.

It has only been in recent decades that meteorologists have identified the El Niño Southern Oscillation (ENSO) as one of the most significant climatic phenomena on the planet, with wide impacts in the Pacific region and its adjacent territories, and often also well beyond. The two poles of ENSO, El Niño and La Niña events, are recognised as producing some of the most extreme weather in the affected zones, notably droughts, floods and cyclones.<sup>1</sup> In eastern Australia, La Niñas tend to be infrequent and short, but result in periods of above average rain. In contrast, most of the many severe droughts that have been recorded in eastern Australia's European history are now associated with El Niño events.

As recognition of the importance of ENSO as a natural phenomenon has grown, historians have also begun to look afresh at human history, identifying the economic and social repercussions of these climatic fluctuations. Henry Diaz & Vera Markgraf,<sup>2</sup> Brian Fagin,<sup>3</sup> Michael Glantz,<sup>4</sup> Cesar Caviedes<sup>5</sup> and Richard Grove<sup>6</sup> are among those who pioneered this work. However, it was Mike Davis' *Late Victorian Holocausts*<sup>7</sup> that most piqued my interest in the great droughts of the late nineteenth century and turned me towards examining El Niño effects in the southern hemisphere. In Australia, research into climate history has also emerged, stimulated by the 2005 collection *A Change in the Weather*.<sup>8</sup> The principal Australian research in historical El Niño events has been pioneered by climatologist Neville Nicholls.<sup>9</sup>

The El Niño droughts that pepper Australian history have been a pertinent but not always adequately recognised factor in Australian economic and social history. Over the decades, droughts set back colonial "progress" by starving enormous numbers of sheep and cattle and reducing wool and meat production, by devastating small-farmer agriculture and by drying the Murray-Darling river system whose waters and river trade were central to much of eastern Australia's prosperity. Droughts also fed into national self-perception and mythologising, emphasising the different experiences between those with the attributes to survive and those who failed, between city and country and between the relative hardships of poor, middle class and wealthy.

Somewhat inexplicably, however, despite their frequency and impact there has been disproportionately little study of the social and cultural

<sup>&</sup>lt;sup>1</sup> For example: Allan, et al, *El Niño Southern Oscillation*; Garden, *Droughts*, *Floods & Cyclones*.

<sup>&</sup>lt;sup>2</sup> Diaz, et al, *El Niño: Historical and Paleoclimatic*; Diaz et al, *El Niño and the Southern Oscillation.* 

<sup>&</sup>lt;sup>3</sup> Fagan, Floods, Famines, and Emperors.

<sup>&</sup>lt;sup>4</sup> Glantz, Currents of Change.

<sup>&</sup>lt;sup>5</sup> Caviedes, *El Niño in History*.

<sup>&</sup>lt;sup>6</sup> Grove et al, *El Niño*.

<sup>&</sup>lt;sup>7</sup> Davis, Late Victorian Holocausts.

<sup>&</sup>lt;sup>8</sup> Sherratt et al, *A change in the weather*.

<sup>&</sup>lt;sup>9</sup> For example: Nicholls, "Historical El Niño/Southern Oscillation"; Nicholls, "The Centennial Drought".

implications of El Niños and of droughts in Australia's European history.<sup>10</sup> This chapter is drawn from a wider study I have undertaken on this subject that examines some El Niño periods in the second half of the nineteenth century.<sup>11</sup> This work is premised on the recognition which underlies environmental history that the environment, including climate and weather, are often very significant in shaping fundamental aspects of human history including social developments and culture as well as the economy. This is in no way promotes old fashioned race-oriented "environmental determinism", but is recognition that to leave the environment out of human affairs distorts our understanding of human history and its relationship with natural systems. Storms, good rainfall, excessive rainfall and droughts (which in many parts of the world directly relate to the ENSO), together with other basic inputs such as soil fertility and topography, have been major shaping factors in such matters as human economies, survival, spiritual beliefs, language and ritual. However, it is necessary to be careful not to exaggerate the impact of climate and weather events in shaping history, but to seek to explain the extent to which they were or were not influential. This chapter will examine three aspects of the influence of the Federation Drought - the social repercussions, cultural representations and the political federation of the Australian colonies.

The Australian environment, particularly its vast areas of semi-arid open woodlands and grasslands, and its arid saltbush country, was fundamental in determining that sheep and wheat would be the main colonial agrarian industries. Few other commodities could be produced viably in such challenging zones, or marketed over such great distances. These industries played a major role in shaping such basic social and economic elements as the size of rural holdings, the distribution and nature of the workforce, and the industries and demographics of urban entities. In turn, these elements fashioned, and modified from their British origins, Australian socio-economic relationships, culture and identity.

The long period of below-average rain during the Federation Drought was particularly damaging because it occurred at an economically and environmentally vulnerable time. The colonial economies, especially in Victoria, were still emerging from a ruinous depression in the early 1890s. In the pastoral industry the effects of the drought were aggravated by the fact that it had spread in preceding years into highly marginal western arid zones where stock food and water soon ran short when rainfall declined.

<sup>&</sup>lt;sup>10</sup> There is relevant work in McKernan, *Drought*; Bonyhady et al, *Words for Country*.

<sup>&</sup>lt;sup>11</sup> Garden, *Droughts*.

Agriculture had been stimulated since the 1870s by the substantial conversion of pastoral land and bush to small "selection" farms, but many of the developing agricultural regions were semi-arid and were very vulnerable to climatic fluctuations. On top of all this, weather conditions were compounded by anthropomorphic changes to the environment, such as degradation of indigenous vegetation and water systems and the introduction of feral species (most notably the rabbit), which weakened the capacity of natural systems to resist drought. As Michael Glantz has said, under such circumstances "drought follows the plow".<sup>12</sup>

Despite these obstacles, by the 1890s the Australian colonies had achieved a new maturity, having moved beyond their pioneering phase and emerged as reasonably sophisticated communities with large cities and most of the latest facilities imported from the northern hemisphere. In an emotional sense, too, Australian colonists had partly "mastered" the environment and the bush was no longer perceived as so alien and threatening. European Australians exhibited a new confidence in their occupation of the land, and increasingly incorporated the bush into their cultural identity. However, nature had not been defeated and in the 1890s it fought back with renewed vigour, using drought as a weapon to undermine human pretensions and to damage their economy and society. Amidst all this, the colonies agreed to federate in a new unified political unit, and the Commonwealth of Australia was declared on 1 January 1901.

## Social repercussions of the Federation Drought

Inevitably, such a lengthy period of drought covering a large area of the continent had profound effects on many aspects of colonial life, not only economic but also social and cultural. On the most basic level, the decline in water quantity and quality, combined with poor sanitation, contributed to peaks in diseases and deaths, and the newspapers contain numerous reports of outbreaks of illness and epidemics including typhoid, enteric fever, influenza and diphtheria. Nevertheless, despite the perusal of hundreds of newspapers, no clear cases of death from thirst and only one apparent case of starvation have been found – an old farmer who had been without food for some days and was suffering from dysentery.<sup>13</sup> This was partly due to the fact that while food was at times in short supply and was expensive there was no famine, and partly due to the meagre but effective government and private support systems that operated.

<sup>&</sup>lt;sup>12</sup> Glantz, Drought Follows the Plow.

<sup>&</sup>lt;sup>13</sup> Maitland Mercury, 4 Jan 1896.

Outbreaks of disease were particularly prevalent during the periods of intense heat that came during the drought when, in the absence of air conditioning, sunscreens and other modern measures of relief and protection, people were exposed to debilitating heat, "sunstroke" and other tribulations. Two extreme heatwaves occurred in January 1896 and in the heatwave summer of 1897-98. During the 1896 heatwave, furnacelike winds from central Australia pushed temperatures well into the forties Celsius across much of the eastern half of the continent, setting new records and causing great suffering from heat and diseases, and numerous deaths. Conditions were particularly bad in outback New South Wales where there were reports of heat up to 52°C. The town of Bourke had an average over three weeks of 44°C, including four consecutive days of 48°C. Those who could had fled Bourke by train, but some 160 people died of heat and disease.<sup>14</sup> The summer of 1897-98 was even hotter and windier in parts of eastern Australia. Many towns ran short of water and there were more deaths from heat and outbreaks of typhoid. In New South Wales the death rate increased by more than 20 per cent over these weeks, and was particularly high among infants.<sup>15</sup> Perhaps the only positive aspect was that large numbers of rabbits died of heat and starvation.

Sparked by heat and desiccation, bushfires burned their way across large areas of the colonies, killing unknown thousands of pastoral animals and causing immense damage to public infrastructure and to private property including houses, farm buildings, crops and fences. In some places there was significant loss of human life. During the first two months of 1898 there seems seldom to have been a day when there was not a fire in the eastern colonies, especially Victoria. Much of Gippsland (eastern Victoria) was devastated, with the smoke so thick that daylight turned to dark, and offshore coastal shipping was forced to slow. Smoke from the Victorian fires even created a haze over Sydney.<sup>16</sup> A number of bushfire images captured the drama, most notably a large canvas by artist John Longstaff who travelled to Warragul to help fight the Gippsland fires. He later recorded the event in Gippsland, Sunday Night, Feb 20<sup>th</sup>, 1898, which was immediately purchased by the National Galley of Victoria and became a popular favourite.<sup>17</sup> As these experiences illustrate, rural populations bore most of the economic and social brunt of the drought. Bush people, especially rural workers and small farmers (generally known

<sup>&</sup>lt;sup>14</sup> Russell, "On Periodicity of Good and Bad Seasons"; Melbourne Age and Argus,
6 Jan 1896 ff, esp Age, 24 & 29 Jan 1896, and Argus 22 Jan 1896.

<sup>&</sup>lt;sup>15</sup> Sydney *Daily Telegraph*, 12 Feb 1898.

<sup>&</sup>lt;sup>16</sup> Melbourne *Age* and *Argus*, Jan and Feb 1898.

<sup>&</sup>lt;sup>17</sup> Astbury, *City Bushmen*; Schauble, "Red Steers and Exploding Houses".

as selectors), confronted economic struggle, isolation and hardship at the best of times, but the drought made life even more difficult, aggravating the already contrasting experiences between country and city dwellers.

The effects in pastoral regions were diverse, but widely shared across the communities. In early 1895 large areas of pastoral country were already in a bad way, at least partly because of overstocking and the rabbit plague which had denuded large regions of vegetation and left it vulnerable to desiccation and erosion. "As the country becomes worse", the Burra Record reported, "the rabbits swarm around the homesteads and tanks, and are dying by thousands, and so become another nuisance to settlers."<sup>18</sup> The pastoralists' problems worsened after 1895 when drought, rabbits and wild dogs increased their toll, the land dried, vegetation disappeared and more animals died.<sup>19</sup> Stock values fell to virtually nothing, and even then there were few buyers as there was so little feed. Lambing rates were reduced or lambs were killed to increase the chances of survival of their mothers. Pastoral animals died of both starvation and thirst, but starvation was a greater killer than a lack of water. Many bores had been sunk to provided watering points, and dams and other forms of water conservation had been established. Thirsty and starving animals congregated near them and quickly ate out all the feed within eight or ten kilometres, the limit sheep could travel from water to eat. Many hundreds of thousands of stock were driven out to graze "the long paddock", the vegetation that grew along the roadsides and on Crown Land. At best, it was a temporary measure as watering points were limited and the remaining vegetation was soon exhausted - innumerable animals dropped by the wayside. Stock numbers were already in decline from the early 1890s, but by the end of the drought the number of sheep in Australia had halved to about 54 million and the cattle population was reduced by 40 per cent. Wool clips fell, and this in turn reduced both railway revenue and export income. Together with low river levels, these conditions sounded a death knell for the struggling Murray-Darling river trade.

The relentless heat was aggravated by the increased frequency of dust storms as winds out of the hot centre of the continent whipped up and further eroded the exposed soil. Dust storms further stressed struggling vegetation, and permeated everything, including the wool clip whose value was thereby reduced. Thomas Pearse, a South Australian pastoralist, personalised their desperation in a letter to the *Burra Record* in May 1898:

<sup>&</sup>lt;sup>18</sup> Burra Record, 16 Oct 1895.

<sup>&</sup>lt;sup>19</sup> Burra Record, 8 June 1898.

While I am writing this the dust is blowing in clouds; no lambing for the last three years, and a bad prospect for one this year; high rents, and wild dogs galore; three parts of this country blown further east... It will take three good seasons for the country in question to be of [the] same value as it was before the drought set in.<sup>20</sup>

Only with great difficulty could rations and other goods including mails be brought to remote stations and townships, as there was little feed or water for the bullocks and horses which powered transport away from the railways. For workers who remained, their diet was likely to be poor and there was an increased threat from diseases such as diarrhoea and dysentery. Unemployment rose as station workers and others dependent on the pastoral industry lost their jobs.

Selectors fared no better and a significant proportion of those who had taken up land in the preceding decade or two were crippled or broken by the El Niños. As their animals died and their crops withered, many were unable to keep up their payments and gave up their farms or applied for extensions and other concessions.<sup>21</sup>

Inevitably, country towns were impacted upon by the loss of local production and income through drought and fire. The decline of local industries increased unemployment, and local businesses that had advanced credit to local farmers experienced considerable losses. Residents of towns and cities struggled during the drought as the hot, dry weather placed pressure on their limited water infrastructure and baked them when they ventured into the streets, in their homes and at work. Periodic dust storms made life gritty. The cost of living rose as grain foods (notably bread), fruit, vegetables and dairy produce were in short supply and expensive. Against that, meat was cheap because farmers and pastoralists were forced to sell at low prices animals that they could not support.

As farmers struggled and rural unemployment increased, so did the number of swagmen – itinerants tramping the road in search of work such as shearing, often in the hope of earning a few pounds to send home to their wives and children. In Henry Lawson's famous short story "The Drover's Wife", her farmer husband was away droving so the family could keep their farm. It was custom and expectation that "swaggies" would be given a feed and somewhere to sleep for a night, even if they could not be found work. There was a widely held fear – or at least a widely-spread

<sup>&</sup>lt;sup>20</sup> Burra Record, 25 May 1898; see also South Australian Register, 7 June 1898.

<sup>&</sup>lt;sup>21</sup> "Royal Commission... Crown Tenants", for example the evidence of James Kidd, 222; Department of Lands, NSW, *Annual Report* 1902.

myth that there was such fear – that if a "swaggie" was sent away feeling ill-treated, a "carelessly" thrown match or other sabotage could follow, as Lawson described in his story "A Tramp's Match and What it Did".<sup>22</sup> "Swaggies" have been variously depicted in Australian folklore as working-class men down on their luck, or as lazy enemies of property. The nearest thing Australia has to a national song, *Waltzing Matilda*, was written in 1895 about a "swaggie" who stole a sheep from a squatter and drowned himself in a billabong (river pool) while trying to escape the police:

Down came a jumbuck to drink at the water-hole, Up jumped the swagman and grabbed him in glee; And he sang as he put him away in his tucker-bag, 'You'll come a-Waltzing Matilda, with me.'...

Down came the Squatter, a-riding his thoroughbred; Down came Policemen--one, two and three. 'Whose is the jumbuck you've got in the tucker-bag? You'll come a-Waltzing Matilda, with me!'....

But the swagman, he up and jumped in the water-hole, Drowning himself by the Coolabah tree; And his ghost may be heard as it sings in the Billabong, 'Who'll come a-Waltzing Matilda, with me?<sup>23</sup>

While those with the least resources were most vulnerable, financial suffering and personal hardship were almost inevitable across most members of rural communities, and it is difficult to find evidence that the drought had disproportionately harmful effects on any particular social layer. Clearly, those at the lower socio-economic levels were less financially insulated and were more highly exposed to the immediate effects of unemployment and other losses. However, so widespread was the impact of the drought that there were few rural residents who were not seriously disadvantaged. Both the South Australian (1897-98) and New South Wales (1900-01) governments held commissions of inquiry into the struggles of rural producers during the depressed drought years and uncovered a long and sad tale of undercapitalisation and debt, dead animals, failed crops, wild dogs and rabbits.<sup>24</sup>

<sup>&</sup>lt;sup>22</sup> Lawson, Collected Short Stories, 491-3.

<sup>&</sup>lt;sup>23</sup> Paterson, "Waltzing Matilda", 1917 version.

<sup>&</sup>lt;sup>24</sup> "Report of the Pastoral Lands Commission".

Robert Bruce, a South Australian pastoralist who recorded many of his experiences in the north of the colony in prose and poetry from the 1850s to early in the twentieth century, saw the full severity of the changing climate and its resulting hardships, and this forms one of the themes in his work. He wrote three poems on drought - "Drought", "A Dream of Drought" and "The Drought-Ruined Farm. A South Australian Picture of 1897". It is not clear when exactly they were originally penned, except for the last, but they feature in a collection of his work that was published in 1903. Not unexpectedly, he experienced and saw droughts from the point of a view of a "squatter" or pastoralist:

My doleful theme is long protracted drought, That robs the landscape of its verdant charms, The anxious squatter of his nightly sleep, His flocks of life: that swells his overdraft, Till, like invading host, it sweeps away His cash, his credit, all his dreams of wealth.<sup>25</sup>

Nevertheless, Bruce was also conscious of the plight of small farmers ruined by drought:

Those fences gaunt, which bare, red paddocks bound, Like mocking spectres stand in grim array; No blade of grass within their lines is found, No rick of saving hay: No sturdy plough-horse occupies your shed, No portly cow to crown the housewife's pail: 'Tis roofless now; on thatch the creatures fed While it might them avail.<sup>26</sup>

Henry Lawson represents something of a contrast in his social attitudes; he was highly conscious of injustice in contemporary society, and of the perceived inequality of the burden of pioneering the land which fell heavily on bush workers. His 1901 poem "The Men Who Made Australia", written to mark the royal visit to open the Commonwealth parliament, contrasted "the men who own Australia" and their women who would be at the ceremony, with the "men who made Australia" but would not be present. The latter included those who "Died of thirst to win the land another mile" and "the brave drought-ruined farmer". Such people

<sup>&</sup>lt;sup>25</sup> Bruce, "Drought" in *Re-Echoes*.

<sup>&</sup>lt;sup>26</sup> Bruce, "The Drought-Ruined Farm. A South Australian Picture of 1897" in *Re-Echoes*.

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would not be present, "For the men who conquer deserts have to work". Lawson saw inequality in the effects of drought:

They must toil to save the gaunt stock in the blazing months of drought, When the stinging, blinding blight is in men's eyes— On the wretched burnt selections, on the big runs further out Where the sand-storm raises lurid to the skies. Not to profit when the grass is waving waist-high after rain, And the mighty clip of wool comes rolling in— For the Wool-King goes to Paris with his family again And the gold that souls are sacrificed to win.<sup>27</sup>

This judgement seems exaggerated. While there may have been a number of such "Wool Kings" who retained wealth and prestige, the extensive effects of the drought eroded such elite inequality. The late nineteenth and early twentieth centuries was a tipping point at which there was a significant transfer of wealth, prestige and economic and political power from the earlier dominance of rural regions to the increasing dominance of urban interests. The erosion of rural production from the Federation droughts played a significant part in this.

## Cultural representations of drought

Paradoxically, despite the significance and impact of the Federation drought and issues with which it was associated, it was only rarely recorded in contemporary imagery, although in literature it was more common. This discrepancy seems incongruous at first, especially as both contemporary art and literature were focussed substantially upon the bush and its inhabitants, and rural life was often portrayed as a struggle with the harsh Australian environment. Both forms reinforced the popular mythology of shared hardship, Australian mateship and equalitarianism that were central to the emerging national self-identity that focussed on the labour and hardships of Australian bushmen (and to a lesser extent women). Yet the unpleasant realities of drought were often ignored, especially in art, because of a mixture of reasons associated with taste, financial considerations and nationalist pride.

During the second half of the nineteenth century imagery essentially performed two functions – providing information about and illustration of contemporary events, and as expressions of "high art". However, surprisingly few images of droughts and their repercussions were created

<sup>&</sup>lt;sup>27</sup> Lawson, "The Men Who Made Australia" in *Collected Verse* vol 2, 7.

in either category. In part, this reticence was indicative of a national silence on drought since it was not in accord with the image that the new nation sought to portray of itself as a land of agrarian opportunity. However, the fundamental issue was that there was not much public attraction to depictions of bare land, shrunken vegetation, dead animals and dust storms, and limited likelihood of selling works that captured such conditions. Artists and photographers were dependent upon sales to make a living, and as they were largely urban-based a long hot trip to the bush to record rural devastation had little appeal or incentive. Sublime views of dramatic mountains and coastlines, and vistas of green pastures or golden crops, were much more appealing to popular taste. The slow tasks of sketching and painting and the cumbersome photographic equipment and processes also inhibited spontaneous recording. Nevertheless, as the example of John Longstaff indicates, bushfires were such a dramatic and tragic part of the Federation Drought that images of families fleeing the terror and of pioneers unified by mateship in resisting the power of nature, had popular appeal. While few artists were in the right place at the right time to record bushfires, later depictions of bushfire scenes were not uncommon and had a ready market.

Nor was drought a favoured topic for photographers of the time and images from the Federation Drought are surprisingly rare. Sketches and cartoons were more common, especially in the Sydney *Bulletin* which was devoted to the portrayal of bush people and periodically recorded the drought in cartoons with humorous allusions to such issues as the need to drink alcohol in the absence of water, the practice of praying for rain and as dry comment on contemporary issues.<sup>28</sup>

Even the Australian impressionists of the Heidelberg School who emerged in the late 1880s and painted through the 1890s showed little interest in the drought. As Leigh Astbury has pointed out, while much of their art was of bush people and contributed to the development of the Australian bush mythology about the distinctiveness and resourcefulness of rural Australians, it was essentially painted from the urban security of Melbourne and Sydney. While they focussed on semi-idealised rural landscapes and on rural scenes that valourised rural life and labour,<sup>29</sup> and on the struggle to "master" the harsh environment and turn it to production, the impressionists generally ignored or only obliquely referred to drought. In all likelihood, few serious artists experienced the droughtstricken outback during this era, and they were conscious that aridity was

<sup>&</sup>lt;sup>28</sup> For example: Sydney *Bulletin*, 9, 16 Nov 1895.

<sup>&</sup>lt;sup>29</sup> Astbury, *City Bushmen*.

an unpleasant subject that would not be attractive to the art-loving public. The only relevant contemporary work of which I am aware is by Arthur Streeton who in 1895 rather incongruously depicted "The Spirit of the Drought" as a naked nymph standing in a parched landscape near a scattering of human and animal bones.

By contrast, there were rather more depictions of the Federation Drought in written forms. As one would expect, there were innumerable reportage accounts in newspapers and journals of dry country, starving animals and personal hardship, such as this example from the *Bulletin* in June 1902 describing a visit to western Queensland with appropriate hyperbole:

A stifling day. The sky a great, flaming oven. Grass withered; water gone; famine-stricken, blear-eyed bullocks, staggering pathetically. Grotesque caricatures of sheep-mere bones holding up the pelt. Plain after plain of parched wilderness. Not a tree nor a shrub for miles; nothing but dust and desolation. Skeletons and bones everywhere. A fetid smell in the air. The hateful crow flickering from carcase (sic) to carcase in fiendish exultation. Not a soul to be seen for 50 miles. A station!. No hearty welcome hereonly a depressed grunt. The mail-the only thing to look forward to in this wilderness of desolation-a lingering life of misery!. The sun goes down a ball of fire: then a shanty appears on the horizon. Two looney fellows lounging on the verandah, stupefied with liquor. A careworn, weary woman, prematurely aged, nursing a sickly-looking baby. Four sillylooking children-old-fashioned, sore-eyed, dirty. A heavy drink-sodden host. A horrible decoction called whiskey; hard salt junk, damper, and a black unnameable stewed substance. A sleepless night, battling with mosquitoes and other insect pests. Daylight, and a repetition of the same thing.<sup>30</sup>

Some of Australia's best-known writers such as Henry Lawson, Banjo Paterson and Steele Rudd, whose work was often first published in the *Bulletin*, spent more time in the bush than most contemporary artists, and were more able and content to depict, warts and all, the rugged Australian experience. In their view, the environment was a force in building national character and independence, since those who fought drought, flood and bushfire were hardened and shaped by the experience. Such challenges also made bushmen more resolutely independent, yet more committed to mateship with their fellows. In Lawson's poetry and short stories from the time, the drought and the resulting struggles of the bush battlers was a periodic theme. Poor Mary in "Water Them Geraniums" was one of those

<sup>&</sup>lt;sup>30</sup> Sydney *Bulletin*, 21 June 1902.

who suffered: "I've seen her, in the terrible drought, climbing she-oaks and apple-trees by a makeshift ladder, and awkwardly lopping off boughs to feed the starving cattle. 'Jist tryin' ter keep the milkers alive till the rain comes."<sup>31</sup>

In December 1896 Paterson's "Song of the Artesian Water" was published in the *Bulletin*. It was a rather alarmed response to the drought, "Now the stock have started dying, for the Lord has sent a drought". In a desperate search for water a bore is being sunk, but goes deeper and deeper without success:

If we fail to get the water then its ruin to the squatter, For the drought is on the station and the weather's growing hotter, But we're bound to get the water deeper down.

Finally, perseverance is rewarded "for they've struck the flow at last... And it is bringing hope and comfort to the thirsty land again".<sup>32</sup>

Paterson also wrote "With the Cattle", (1896),<sup>33</sup> a heartfelt account of droving cattle that were near to death from thirst and starvation. Another poem, "It's Grand" (1902), contained the following memorable verses:

It's grand to be a Western man, With a shovel in your hand, To dig your little homestead out From underneath the sand.

It's grand to be a shearer Along the Darling side, And pluck the wool from stinking sheep That some days since have died

It's grand to be a rabbit And breed till all is blue, And then to die in heaps because There's nothing left to chew.<sup>34</sup>

In December 1895 the first of Steele Rudd's humorous stories appeared in the *Bulletin*, and in the next few years he wrote numerous tales of the hard lives of selectors, particularly his most famous characters Dad and Dave,

<sup>&</sup>lt;sup>31</sup> Lawson, Collected Short Stories, 371.

<sup>&</sup>lt;sup>32</sup> Paterson, Sydney *Bulletin*, 12 Dec 1896.

<sup>&</sup>lt;sup>33</sup> Paterson, *Australasian Pastoralists Review*, 15 Sept 1896; and Paterson, *Singer of the Bush*, 260.

<sup>&</sup>lt;sup>34</sup> Paterson, Collected Verse, 173.

as they fought aridity and numerous other challenges. The stories were compiled in *On Our Selection* (1899) and *Our New Selection* (1903). Poet G. Essex Evans, another *Bulletin* contributor, published "In Time of Drought" in September 1902. It portrayed drought as one of the forces that hardened the men and women of Australia and "makes a nation great".<sup>35</sup> It is worth noting that Dorothea Mackellar's famous line "I love a sunburnt country" (1904) is a piece of nostalgia that was written when she visiting England.

A "solution" to droughts that had often been advocated, and now gathered momentum, was supported in some of this literature. It was based on a widely held belief that there was not insufficient rainfall and water in Australia, but the problem was that that rain did not reliably fall or water flow when and where they were needed for human activities. This "fault" in nature, so it was argued, could be overcome by human ingenuity and engineering - by sinking artesian bores, "locking" the rivers and building dams. Water would not then be "wasted", but would be provided for stock, river navigation and for irrigation to "make the deserts bloom". There was considerable discussion of these matters in newspapers and other publications and in parliament.<sup>36</sup> but it also made its way into literature. Both Lawson and Paterson were converts to the view that damming the rivers was the solution to drought and the effect of erratic river flows on river trade, and took it up in their writing. In 1899 Lawson's "Song of the Darling River" called for the river to be locked,<sup>37</sup> and his 1905 poem "The Water" was his "song of irrigation":

We've been drought-ruined in the West— And ever in my dreaming I see wide miles of waving crops And sheets of water gleaming, On plains where fortune died of thirst When my brave father sought her, I see painted barges pass Along the winding water. <sup>38</sup>

This transformation would be achieved, he explained in another poem, by "Australian Engineers" (1904). Their skills would overcome drought and transform the western plains:

<sup>&</sup>lt;sup>35</sup> Evans, Collected Verse, 250.

<sup>&</sup>lt;sup>36</sup> Garden, *Droughts*.

<sup>&</sup>lt;sup>37</sup> Sydney *Bulletin*, 25 March 1899.

<sup>&</sup>lt;sup>38</sup> Lawson, Collected Verse, 125.

It is they who would set fair cities on the western plains far out, They who would garden the deserts—*it is they who would conquer the drought!* 

They see the dykes to the skyline, where a dust-waste blazes to-day, And they hear the lap of the waters on the miles of sand and clay; They see the rainfall increasing, and the boundless sweeps of grass, And all the year on the rivers the strings of barges pass.<sup>39</sup>

One of the obstacles to the achievement of this utopia, however, was intercolonial rivalry over the use and control of water in the rivers, an issue made more pertinent by the drought.

### Drought, water and federation

The influence of the El Niño Federation Drought on moves towards the federation of the Australian colonies need necessarily be speculative and intangible, as indeed are most attempts to explain why the Australian colonists agreed to become a nation. There has long been a debate about the reasons for the effective rejection of federation in 1898, and why only a small majority of colonists finally agreed in 1899 to unify. A range of explanations has been put forward, among them the depth of response to emerging national sentiment and the expected economic benefits and disadvantages.<sup>40</sup>

I am of the view that the Federation Drought contributed in some measure to the popular vote both for and against federation, potentially in three ways. First, the extent and impact of the drought and other extreme weather in the period, from Queensland to Tasmania and South Australia, and from the east coast to the centre, promoted a common sense of experience, tribulation and loss. The drought recognised no borders. This arguably had two effects. One was to enforce the sense of common identity and shared adversity as "Australians", the theme that was so successfully promoted by the nationalist literature of the *Bulletin* and its writers. Second, the common experiences of economic hardship during the drought also made many colonists more aware of the potential financial benefits of political unity, especially for colonial border regions where business and production were expected to be stimulated by intercolonial free trade and the abolition of intercolonial tariffs. One region with such expectations was along the Murray in northern Victoria where the *Riverine* 

<sup>&</sup>lt;sup>39</sup> *Ibid*, 92.

<sup>&</sup>lt;sup>40</sup> Eastwood et al, *Historical Studies*; Martin, *Essays*.

*Herald*, published in Echuca, supported federation largely because of the expected economic advantages for the region. Others regions and individuals, however, were made to feel more economically vulnerable during the economic downturn that accompanied the drought, and hence viewed federation with more suspicion<sup>41</sup>

The third way in which the drought appears to have influenced federation sentiment was in the quarrel over who could use the waters of the Murray-Darling Basin, Australia's only major river system, and for what purpose – irrigation or river trade. The Murray is Australia's longest river, stretching for about 2,600 kilometres from its source in the Snowy Mountains to its ocean outlet from Lake Alexandrina in South Australia. For much of its length it forms the border between the two most populous and powerful colonies, Victoria and New South Wales. Many tributaries flow into the Murray along this length, gathering waters from a Basin that covers about a million square kilometres, or about 14 per cent of the continent. The largest tributary, the Darling River, stretches northward from Mildura in northern Victoria, across western New South Wales and into south-western Queensland, gathering the waters of numerous intermittent streams. Four of the six colonies, therefore, had an interest in possession and utilisation of the waters in the system for urban supplies and river trade. From the 1860s, when there was sufficient water in the rivers in this erratic and semi-arid climate, paddle steamers and wool barges plied their way up the Murray, Darling and several of the minor streams, carrying stores to outback sheep stations and towns, and bringing back bales of wool. The two main inland ports were at Echuca in Victoria and Morgan in South Australia, from where freight was carried by rail to ocean ports. By the 1890s railways were seriously encroaching on the river traffic in some places, and when the drought brought most steamers to a standstill, the future of the industry without the construction of river locks seemed in doubt.

As a major river port, Echuca had long called for the Murray and Darling to be "locked" and the *Riverine Herald*, like many other newspapers and communities in Victoria and South Australia, favoured a federated system because they believed it would facilitate both more equitable water distribution and revival of the languishing river trade. The *Herald* declared in January 1897 that "One of the first duties of a federated Australia ought to be the improvements of the water conservation and

<sup>&</sup>lt;sup>41</sup> For example: *Riverine Herald*, 7 Jan 1896.

supply especially as between New South Wales, South Australia and Victoria." $^{42}$ 

To complicate matters, from the 1880s Victoria, South Australia and New South Wales looked to the rivers as a source of water for irrigation schemes to "make the deserts bloom", and some extensive projects had commenced to pump large volumes of water onto orchards, vineyards and other crops.

As a result, by the 1890s there were two somewhat but not entirely conflicting ambitions for utilisation of the limited water in the system, with both groups advocating the damming and blocking of the rivers. Who "owned" the waters and could use them had become an issue of some contention, both in riparian law and between the colonial governments, a tension that was aggravated by the declining river levels during the drought. One of the potential solutions was a new federal authority that would administer the waters in the Basin for the wider good, and this anticipation contributed some small support for federation. By contrast, parochial jealousies about loss of control over water, especially in times of scarcity, heightened resistance among some colonists to the concept of a central authority.

In the late 1890s the Australian colonists elected representatives who met at a series of conventions to draw up a Constitution that would bring them together as a single, federated nation. At the 1897 Federal Convention, in particular, one of the many issues that divided the colonial delegates was ownership of and the "right" to use the waters of the Murray-Darling system. South Australia, at the lower end of the system, was already receiving very little flow and was particularly concerned. However, there was very little sympathy from New South Wales, especially delegate Joseph Carruthers. He expressed the view that his colony now had little interest in river trade as its government had been steadily pushing railways into its remote corners. This had already marginalised the paddle steamers and now, he asserted, rather than being used for river trade that would compete with its railways, New South Wales wished to assert its "right" to use its water for its purposes principally as irrigation to stimulate agricultural settlement:

What is the use of navigation on these rivers if you have the people driven away from settlement, and you have no goods to carry?... There are 140,000,000 of acres of land in New South Wales which depends for its waters on the tributaries of these streams. That 140,000,000 acres to-day sustain practically a mere handful of people, and it is by the development

<sup>&</sup>lt;sup>42</sup> *Riverine Herald*, 1 Jan 1897; also 13 Feb 1896.

of that great and rich territory that we hope to have the teeming population of the future. But if you shut out from the people the source of the water supply you shut off the possibilities of development in the future. So far as we are concerned, and I think that all reasonable men will admit it... navigation is a matter of secondary importance. The matter of importance is to get the people settled, to increase the productiveness of the soil by promoting increased population, not by increasing the facilities for navigation, but by increasing the facilities for closer settlement... We have got to trust to our own State, not to Federation, for the moment we hand over the control of these rivers we bring in an authority which will not be so much in sympathy with the aims and desires of the New South Wales people to settle its people on the land as the local authority, and we shall never persuade the people of New South Wales to accept a Federation which hands over the great arteries of our colony to another power, even though that power be one in the authority and influence of which we share.43

Victorian delegate Alfred Deakin, who had been responsible for major promotion of irrigation in the 1880s and was now one of the main promoters of federation, pointed to the advantages of a central authority:

I take it that, in the territory through which this magnificent river flows, there must be federal action, of a kind and upon a scale not contemplated as yet by any colony of this group. The absolute necessities of the drought-stricken inland districts will lead to expenditure upon it in the way of dams, locks, diversions and storages... The Government of the United States has spent enormous sums in improving their navigable streams, and in the future in the basin of the Murray enormous sums will also be disbursed, but whether that will be spent for navigation I am not prepared to say. It might be found advisable in the future to have a joint scheme of navigation and irrigation whereby, while the traffic on the Murray was increased, along the banks of the streams you would have a quantity of produce raised...<sup>44</sup>

However, as Carruthers' statement and the reluctance of many in New South Wales to vote for the federation indicate, the link between drought, water and federation was not always seen as positive. Concern about loss of control over the rivers was one of many factors that contributed to "no" votes.

Another interesting connection between the drought and the federal vote was made by the *Riverine Herald* in June 1898. In the last couple of

<sup>&</sup>lt;sup>43</sup> Federal Convention, 17 April 1897.

<sup>&</sup>lt;sup>44</sup> Ibid.

days before the referendum there was a short break in the drought. In an intriguing and enigmatic statement the *Herald* saw this as a threat to support from New South Wales for the federation. The inference is that rain had relieved the immediate economic pressure that was pushing the colonies towards federation. With widespread rain, voters in New South Wales might now lapse into greater indifference or opposition to federation:

The weather changed yesterday and the change was very significant, owing to the Federal vote having been taken. People in these parts were in a quandary. They did not know whether the rain was more a blessing or an evil... it will do the country good, but will it do the Federation cause any good? The general impression was that if the rain was general in New South Wales it would result in harm. About 30 points was registered up to midnight locally last night.<sup>45</sup>

As matters turned out, federation was agreed to and the Constitution provided for the establishment of an interstate commission to deal with navigation and other river water issues in the Murray-Darling Basin. However, because of ongoing disputes and jealousies between the (now) states, the commission was not established until 1913.<sup>46</sup> It was ineffective and became another venue for the disputatious states to air their jealousies, divisions and rivalries.

#### Conclusion

The length and severity of the Federation Drought make it one of the most significant natural events in Australia's European history and, given the number of human deaths and amount of damage to human property and endeavour especially from the accompanying heatwaves and bushfires, it can be collectively classed as one of Australia's gravest natural disasters. While the severity of the drought has been the focus of some historical attention, until the last decade or two it was not recognised that this drought period, and most other severe eastern Australian droughts, was caused by an El Niño event. The 'discovery' of ENSO, with its extremes of droughts and floods, has drawn a clearer nexus between the sciences and the humanities, and has thereby contributed to the development of new interpretations of Australian history in which the

<sup>&</sup>lt;sup>45</sup> *Riverine Herald*, 4 June 1898.

<sup>&</sup>lt;sup>46</sup> Powell, *Watering*, 137ff; Blackburn, *Pioneering Irrigation*; Hallows et al, *History of Irrigation*.

power of natural forces to shape human history is being re-examined. Recognition of the El Niño Southern Oscillation as one of the most powerful natural forces in the Australian context, with its periodic threat to the economy, security and quality of life, is now seen also to have been unconsciously incorporated into national culture and self-perception. Environmental and climate historians are at the centre of this reexamination, using climate understanding as a new prism through which better to examine the past.

Another thread of Australian history which can be seen during the Federation Drought, and which has gained attention under the magnifying glass of climate history, is the long-held need to understand the climate and weather, to identify ways in which human action can and has impacted upon them, and to discover ways to control, exploit or ameliorate the effects of extreme ENSO weather. Such 'solutions' have created much difference and debate.

Those familiar with contemporary Australia will be all too aware of this as the situation has changed little in the more than a century after the Federation Drought, and Australians are still experiencing and eternally discussing many of these matters. The situation has become even more threatening and potentially catastrophic. Climate change and the apparent increase in the frequency and extent of El Niños, the badly degraded state of its rivers, and the still unresolved control and equitable distribution of the waters of the Murray-Darling, are among the most pressing and depressing of the raft of environmental matters that challenge contemporary Australia.

If nothing else, environmental history reinforces the old adage that those who do not learn from the past are doomed to repeat its mistakes. Those who neglect climate and the lessons that can be learned from studying the influence of weather on human societies face a problematic future.

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