CHAPTER 3

The earth’s thoughtful lords?¹ Nineteenth-century views of water and nature

To some degree all immigrants straddle two worlds, for they carry two memories in their heads and two lands in their hearts.

Richard Broome²

Even the dominant grasses, which so attracted the pioneer pastoralists, remain unnamed in their records.

Ian Lunt³

Introduction

No child is born into this world a blank slate.⁴ Even if she were, her culture would immediately set to filling the void. No matter on what continent or in what time a child is born, she enters a mutually reinforcing web of custom, belief, knowledge and behaviour – her gestalt. Over time, this shapes the child’s version of reality.⁵

² R Broome, The Victorians: Arriving, Fairfax, Syme and Weldon, McMahons Point, NSW, 1984, pp. xii.
⁴ N Newton Verrier, Coming home to self: The adopted child grows up, Gateway Press, Baltimore, 2003. Chapter 2 called ‘Adoption and the Brain’ discusses recent research in brain neurology that demonstrates that newborn babies can recognise the sound of their mother’s voice, among other skills. See also AM Paul, ‘How the first nine months shapes the rest of your life: The new science of fetal origins’, Time, 4 October 2010, pp. 28–34.
She will learn how to dress and to speak, and how to relate to others different to her in age, gender and social grouping. She will learn about the properties and characteristics of the physical world she dwells in, and the levels of significance ascribed to them in her culture. Mostly, this learning is done implicitly: through language, through observation and participation in daily life, and informal instruction by family and friends. In societies where literacy was confined to an elite, this osmotic style of learning by experience was the norm. It should be remembered that primary schooling is an invention of the late nineteenth century and only became compulsory in Victoria in 1872.

For a white child born in the nineteenth century in Europe or colonial Australia, this socially constructed world included what we might call ‘the common water’. Experiencing thirst, a child learns that water is important to survival. If their family was afflicted by a water-borne disease like cholera, they learnt that it had to be clean water. They would see its cleansing properties at work scrubbing floors or clothes. They could observe the manufacturing uses of water, perhaps seeing horseshoes being plunged into water. Adults around them might complain of the cost of road freight, or they might live near a canal or river. They would attend the baptisms of their younger siblings, observing the use of holy water. Children in wealthy families might observe the construction of garden fountains. All this knowledge – the common water – is acquired without ever setting foot inside a school house.

The purpose of this chapter is to explore this intimate, ubiquitous relationship with water. ‘Interactions with water’, Strang notes, ‘take place within a cultural landscape which is the product of specific social, spatial, economic and political arrangements, cosmological and religious beliefs, knowledges and material culture, as well as ecological constraints and opportunities’. Strang’s anthropologically inspired description echoes the discussion of gestalt psychology put forward in Chapter 1. Both emphasise the specific cultural nuances that are the product of the historical time and place, and recognise the interconnecting influences between each aspect.

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This chapter seeks to define the key mutually reinforcing beliefs and experiences about water held by nineteenth-century migrants. Using DuNann Winter’s analogy of the frame of a building from Chapter 1, I suggest that there are six key parts to the framework of colonial Gippslanders’ beliefs around water. I argue that they:

- had a set of religiously derived beliefs about the nature of reality, which included teachings about the relative importance of landscapes, waterscapes and water
- believed in the entwined goals of ‘progress’ and ‘transforming the wilderness’
- were familiar with contemporary literature, poetry and music, which echoed these ideas
- had practical experience of illness related to water
- were principally engaged in agriculture and pastoralism
- were accustomed to transformed landscapes, including trained rivers, canals and swamp drainage.

Together with the understanding of the hydrological cycle laid out in Chapter 2, this led to a consensus that permanent, moderate flowing water in defined channels was the ideal. Over nearly 70 years, emigrants to the Gippsland Lakes Catchment (GLC) took individual and collective action to make the landscape conform to this ideal. This chapter will examine these mutually reinforcing beliefs about water; Chapters 4 to 7 will examine how the beliefs translated into action in the catchment.

**Water symbolism in Christianity, or biblical hydrology**

While notions of the universal are often suspect, there are two reasonable claims for universality in water. The first is its essentialness to survival, and the second is its resulting elevation to divinity amongst many cultures. From Iris, goddess of the rainbow in Greek mythology, to Tiddalik, the

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frog in Kurnai cosmology, human cultures have regularly incorporated water, water-related phenomena and aquatic species into their religious systems.\(^9\) Christianity is no exception.

Christianity contains a common stock of master-narratives or myths, deeply rooted in stories that Europeans had themselves inherited from the Judaeo-Christian and Classical traditions with which most in the nineteenth century were familiar and largely took for granted.\(^10\) Ely described these religious undergirdings:

Proclaimed from pulpits, and taught in Sunday schools, but implied also in the solemn declarations and formal oaths which were integral to the routines of legal, political and business life, was the idea of a society living under divine as well as human law, a divine law, furthermore, spelled out in terms of fearsome sanctions for disobedience. Many saw these sanctions as laid down in what was sometimes called God’s law book – the Bible.\(^11\)

Even the least zealous would have absorbed the basic teachings that begin with Genesis. Christianity’s creation story is quite explicit, the earth was a designed world for human benefit:\(^12\)

So God created man in His own image; in the image of God He created him; male and female He created them. Then God blessed them, and God said to them, ‘Be fruitful and multiply; fill the earth and subdue it; have dominion over the fish of the sea, over the birds of the air, and over every living thing that moves on the earth.’\(^13\)

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\(^10\) G Davison, Narrating the nation in Australia, The Menzies Lecture, 2009, Menzies Centre for Australian Studies, Kings College, London, University of London, 2009, p. 3. Davison’s discussion is mostly focused on nationalist myths, but the frame of Judaeo-Christianity applies equally to environmental matters.


\(^12\) A number of writers have pointed out that the anthropocentric view predates Christianity, e.g. R Sheldrake, The rebirth of nature: The greening of science and god, Century, London, 1990; and G Seddon, Landprints: Reflections on place and landscape, Cambridge University Press, Cambridge, 1997, chs 20 and 21. My point is that a nineteenth-century settler with minimal education would be unlikely to know this.

While there is now a strong challenge to this belief, it was the common view in the nineteenth century. Much of the opposition to Darwinian theory centred around its challenge to the concept of a divinely designed earth.

While Cannon suggests a post-Darwinian break in Christianity, evidence from the study area does not support this. If settlers did not genuinely believe the Christian narrative, it is hard to imagine why they would spend time away from home and divert money away from farms and businesses to support the churches. One might argue that the importance of religion rose for those who were moving into potentially perilous new lands. Davison has shown that the theme of Genesis and Exodus provided moral legitimacy to the process of colonisation, thus making the daily struggles of farm life seem meaningful. Why else was one of the first acts of a new community to build a church?

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15 This also echoes the divine design notion of hydrology. See A Moyal, *A bright and savage land*, Penguin, Ringwood, Vic., 1993, p. 142.

16 M Cannon, *Australia in the Victorian age: Life in the cities*, 3rd edn, Penguin Books, Ringwood Victoria, 1988, p. 77; R White, *Inventing Australia*, Allen and Unwin, North Sydney, 1981, pp. 68–9. This is not to say that the impact of Darwin’s theory was not debated in Gippsland. Scientific challenges to Christianity were debated in the catchment’s various churches, e.g. 25 July 1885 the *Bairnsdale Advertiser* reported a lecture on geology and the Bible being given by Rev. Morton in the Presbyterian Church. As Oelschlager notes, the Western world had no notion of the deep past, or a Palaeolithic past until the middle of the nineteenth century when Darwin and Lyell set the cat amongst the pigeons, and destroyed the idea of the world of being 4,000 years old. M Oelschlager, *The idea of wilderness: From prehistory to the age of ecology*, Yale University Press, New Haven, 1991, p. 6. See also I Keen, ‘The anthropologist as geologist: Howitt in colonial Gippsland’, *The Australian Journal of Anthropology*, vol. 11, no. 1, 2000, p. 79. doi.org/10.1111/j.1835-9310.2000.tb00264.x.

17 Davison, *Narrating the nation in Australia*.

Figure 3.1: Church at Sth Yinnar. A typical example of the small community-built churches that dotted the landscape.
Source: Author.

Figure 3.2: Tambo Valley, illustrating the gentle slopes that were so sought after.
Source: Author.
Diary evidence from the GLC shows little evidence of agnosticism or atheism. George Auchterlonie made a point of recording his vow to God in his diary. The full entry for 22 February 1869 reads:

Finished the roller. Weather stormy. Reading Dodridge’s Rise and progress. Have resolved today to Seek to become a true follower of Christ. May My Creator enable me to keep this resolve and may it never be forgotten by me, amen.

Caleb Burchett was instrumental in setting up church services in Poowong, commencing in a tent on his selection. The Rev. John Watts preached the first service to a large crowd in uncomfortable heat on 17 February 1878. Margaret McCann was a strict Methodist, living on a Stradbroke sheep farm before, during and after the Federation drought. Her diary records regular attendance and involvement in church activities. Miss Caughey of Traralgon was an assistant Sunday school teacher, while George Auchterlonie liked to record his impressions of various preachers in his diary. The daughters of surveyor William Dawson, who married into the Macleod clan of Bairnsdale, were described as ‘wonderful women, scrupulously honest and very religious – Chapel every morning and prayers and readings with the servants – who spent their lives caring for others’.

19 Reminiscences of Caleb Burchett, SLV, MS 8814, MSB 436; Diary of Margaret McCann, SLV, MS 9632, MSB 480; Diary of AM Caughey SLV, MS 8735, MSB 434; Diary of George Glen Auchterlonie, CGS, 4060; East Gippsland Historical Society Newsletter, vol. 1 no. 3, letter from Frederick Gray to Mr Lewis, dated 4 August 1855, describing his life at Lindenow. The letter concludes by asking Mr Lewis who the new preacher is in his home village in England and for his opinion of him.

Further evidence of Gippslanders’ religiosity is found in the newspapers. The local press regularly reported on religious activities, made analogies with Bible stories and echoed biblical language. In one example, the paper said:

A correspondent remarks: The ways of pedestrians are hard in the good town of Sale, and their boots succumb quicker here to the rough pebbles strewn along its paths than anywhere else … Wisdom crieth aloud for some asphalt or cheap tar pavement to be laid down, but her voice may be likened unto the voice of the wild ass of the wilderness, which no man regardeth.

In 1874, the paper described councillors Ross and Leslie of Sale Borough Council as penitent Adams. There are regular reports on the visits of various temperance lecturers, and on drinking offences, that were strongly religious in tone.

This trend continued throughout the whole of the nineteenth century. In later years, the *Gippsland Times* printed whole sermons in the religious column, and these occasionally used water metaphors to make their point. The following example combines a number of common expressions that wend their way through Chapters 4 to 7:

We shall never do any good, either for ourselves or others, if we set about our work in a dull despairing way, as though, after all, it were of no use, and as though we ourselves and others were mere insects not worth working for … To make the river flow freshly and sweetly across the plain, the springs must be high among the hills. To make man clear the stagnating currents of his life, his faith and hope must be among the heights of Heaven … So I would say to you, never miss the opportunity of contemplating the character, of studying the biography, of imitating the example of a man who was greatly good. Such a man sheds a light around him

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21 For example, *Bairnsdale Advertiser*, 2 May 1885, Cunninghame correspondent: ‘Mr JD Stocks held divine service at the state school … He pointed out most forcibly how prone we are to sin, and that God is angry with the wicked every day’; *Gippsland Farmer’s Journal (GFJ)*, 1 July 1887, included a full sermon on purgatory and judgement based on Lux 16:22 and 23.
22 *GT*, 11 March 1876.
23 *GT*, 22 December 1874.
24 *GT*, 12 October 1887 for temperance; *GFJ*, 10 February 1887, ‘Another illustration of the ruinous effects of over-indulgence in drink was afforded at the Warragul police court’ when WF Page was tried for stealing £2 15 s; *GFJ*, 2 September 1887, opening of the Temperance hall in Traralgon. [Mr Groom MLA] though the inculcation of temperance principles amongst the young was most desirable, and he would especially remind them that so long as they kept temperate and acted through life in a straightforward manner, they could not fail to get on in the world.’
which transfigures the world, as a ray of sunshine transfigures the wet foliage of a tree. Often in life we are like a traveler by night on dark, bad roads. We are in danger of being lost in bogs and quagmires, of falling among thieves.\textsuperscript{25}

All of these examples suggest a common metaphorical language derived from Christianity and its antecedents in the eastern Mediterranean landscapes. Even if Cannon is correct, a lip service attitude still entails attendance at services. Absorbing attitudes about water from descriptions in the Bible did not need an unquestioning belief in creationist beliefs, nor particularly devout faith. So what does the Bible say about water?

While the different brands of Christianity placed different emphases on aspects of faith, in essence it was a rule-based, hierarchical and dualistic system. In the Bishop of Melbourne’s sermon delivered at St Paul’s in Sale in February 1884, this insistence on rules and obedience was quite clear. The kingdom of Heaven was available to all believers ‘unless there was a stubborn, obdurate resistance … to His divine will’.\textsuperscript{26}

Dispenza describes the dualism inherent in Christianity:

\begin{quote}
The principal prayer of Western civilization, instead of helping to establish the bond we are all seeking between our Source and us, actually has been keeping us utterly and eternally apart. The Lord’s Prayer is not about spiritual union with God; it is a heartbreaking hymn of separation … The first six words tell the entire story of unbridgeable separation. There is a God, and he is in heaven. He is not here with us or in us. On the contrary he is far off in a place called heaven, which in the cosmology of the Middle Ages is high above us, in the sky beyond the clouds, beyond the stars.\textsuperscript{27}
\end{quote}

\textsuperscript{25} \textit{GT}, 18 June 1896.  
\textsuperscript{26} \textit{GT}, 18 February 1884. The bishop went on to say that he believed that death did not end the ‘probationary period’ and, in particular, the children of ‘thieves and prostitutes’ who were ‘tainted with vice and revolting wickedness’ would continue their ‘probation’ at God’s leisure. The key elements were a belief in an omniscient male God who dwelt in Heaven, and a set of rules about what constituted Christian behaviour. The rules were founded upon the notion of the Fall, and humans were inherently sinful. The rules existed to save humans from themselves. Adherence to the rules in their entirety would gain an eternal life with God and his son, Jesus, in Heaven. Failure to obey God’s precepts lead to the opposite, damnation in Hell.  
This separation is played out well beyond the location of God vis-à-vis mankind. It extended to a range of other relationships, including man and woman, high and low, light and dark, good and evil, mind and body, white and black, above and below.\textsuperscript{28} It also applied to water in the landscape, with the two major dualisms being wet versus dry and movement versus stillness.

It is not that they are dualisms \textit{per se}, it is their polarisation that is especially important. Weir calls this hyper-separation.\textsuperscript{29} Hyper-separation describes a mindset that emphasises difference rather than continuity and rigidly holds those differences apart. Additionally, one part of the dualism is judged as more socially desirable than the other. Heaven/man/high/light/good/mind/white/wet/flowing is preferable to earth/woman/low/dark/evil/body/black/dry/still.\textsuperscript{30} Hyper-separation allows for no greyness, no elasticity, no shifting between categories. No multiple relationships and very few connections.

The Bible is littered with references to water that display this dualistic perception. For example, there are 67 uses of the word ‘water’ in Genesis alone. It is in Psalms 59 times and in Deuteronomy 22 times. The word ‘river’ receives 26 references in Exodus and 18 in Joshua. Words relating to evaporation are not as numerous but still present. ‘Dry’ is mentioned most in Proverbs, with seven appearances, and six in Joshua. The word ‘wither’ is in Psalms six times.\textsuperscript{31}

How water was depicted in these occurrences creates a form of moral geography, presenting a consistently polarised portrayal of water. Rivers, springs, rain and dew are depicted positively, while floods, hail, frost, drought and swamps are not. Clouds and mist can go either way; for example, clouds can obscure the sun, which was often portrayed as a symbol of God, or they bring God’s love in the form of rain.

Christian religious literature encourages believers to value permanent flowing rivers and to shun marshes and deserts. The Garden of Eden had perennial streams and presumably, as Adam and Eve had no need for clothes, a delightfully mild climate. When they were expelled from

\textsuperscript{28} Strang, \textit{Meaning of water}, p. 90.
\textsuperscript{31} This is from a search on the King James version of the Bible, using the University of Virginia’s e-text repository.
paradise, they entered a desert-like wilderness with no stream in sight. The Book of Revelation is quite explicit in the association of God, His virtue and love with rivers and springs. Chapter 7:17 reads ‘For the Lamb which is in the midst of the throne shall feed them, and shall lead them unto living fountains of waters; and God shall wipe away all tears from their eyes’. In Revelation 22:1–2 the meaning is even more explicit: ‘And he shewed me a pure river of water of life, clear as crystal, proceeding out of the throne of God and of the Lamb’. Feliks notes that flowing water in rivers and springs is used as a motif of resurgence of faith, of the triumph of obedience to God’s will:

The righteous man is compared to a ‘tree planted by the water, that spreadeth out its roots by the river, and shall not see when heat cometh, but its foliage shall be luxuriant, and shall not be anxious in the year of drought, neither shall cease from yielding fruit’.  

Obedience was a smart strategy given the behaviour of the Old Testament God. Dispenza has described him as ‘angry, terrifying, demanding, occasionally helpful, vengeful, annoyed, hard to please, sometimes merciful, usually merciless – and as volatile as a megalomaniac on a rampage. If you do not do exactly as he says, he will smite you and you will die’. This psychopathic version of God was fond of using elements of the hydrological cycle as a tool of punishment, further reinforcing a dualistic perspective.

God’s greatest act of vengeance was the Flood, sent as punishment for deviation from His moral laws. Then there was drought. Isaiah 19:5–10 is an explicit and depressing vision of the consequences of God’s displeasure:

And the waters shall fail from the sea, and the river shall be wasted and dried up. And they shall turn the rivers far away, and the brooks of defence shall be emptied and dried up: the reeds and flags shall wither. The paper reeds by the brooks, but the mouth of the brooks, shall wither, be driven away, and be no more. The fishers shall also mourn, and all they that spread nets upon the water shall languish. Moreover, they that work in fine flax, and they that weave, shall be confounded, And they shall be broken in the purposes thereof, all that make sluices and ponds for fish.

33 Dispenza, God on your own, p. 71.
34 Genesis 6:5–12 does not specify precisely the behaviour that caused such displeasure, only that it was evil in the Lord’s eye and was violent.
The Book of Jeremiah also gives an account of a terrible drought, sent as punishment for the wickedness of the people in forsaking God. While the obedient worshippers will experience the blooming of the desert as prophesied by Joel, Zecharaiah and Ezekiel, the sinful will be punished with thirst, desiccation and withering. Could there be any clearer dualism than that?

Bogs and marshes are used to symbolise being spiritually lost. Psalm 69 says:

For the waters are come in even until the soul. I am sunk in deep mire, where there is not standing; I am come into deep waters, and the flood overwhelmeth me. I am weary with my crying; my throat is dried …

Here is a spiritual wilderness described as being drowned in a bog. John Bunyan, author of the famous book *Pilgrim’s Progress*, continued the metaphor. The ‘slough of despond’ into which Christian falls became a metaphor that has been worked over and over again, as Giblett shows.35

Migrant settlers thus had a strong set of stories about the moral values of water in different places and phases of the hydrological cycle. Some waters were good and some were bad, natural disasters were divine punishment and this was presented as a universal truth. Along with their physical belongings, they uncritically transported these beliefs to their new country.

**Water in literature, poetry and music**

Emotional and spiritual engagement with nature is often facilitated through the arts. In this section, I demonstrate from newspapers reports that settlers in the GLC participated in artistic pursuits that represented water. Art, literature and music reinforced the perceptual disconnect between migrant settlers and the hydrological cycle, because they were authored by Europeans who reproduced the moral geography and dualisms of Christianity. They related to water from the same environmental context as the scientists who developed the concept of the hydrological cycle. Hence, the images and metaphors they employed in their art came from their empirical experience of permanent flowing rivers fed by high

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rainfall. The use of these images and metaphors provided a similar view of water as found in the Bible, and for the atheist/agnostic (there must have been some) would have performed the same function as the Bible.36

Nineteenth-century European arts were dominated by romanticism, a reaction to the ugly impacts of rapid industrial expansion.37 It celebrated and isolated nature, and blanked out certain aspects of human changes to the landscape: ‘Urbanisation, industrialization, parliamentary acts of enclosure, the impact on the rural poor of legislation against vagrancy or poaching – all these could be excluded from consideration’.38 The combination of hydrological determinism and nostalgia for a lost rural idyll flavoured much of the music, poetry and literature that colonial Gippslanders enjoyed, and that provided encouragement for the colonial desire to make Australia an English echo.39

Artistic pursuits provided a much-needed break from the difficulties of settlement, where travel was arduous, company infrequent and freight exorbitant. Synan provides an example of how music helped to soften the mishaps of travelling. A passenger on board a steamer stranded at the bar of the entrance to the Lakes recollected that: ‘In the engineer we had a first class violinist who played all kinds of songs and dances, and the shouts of merriment resounded through the forest on that memorable night’.40 Settlers could join Mechanic’s Institute’s libraries or the small circulating libraries run by local newsagents and booksellers, like Louis Roth, a bookseller, stationer and fancy goods seller in Sale.41 Alternately, there was a healthy flow of travelling performers through the region and many local concerts were performed, usually to raise funds for building

36 There is only one diary whose writer appears to be largely uninfluenced by religious belief. Diary of Duncan Johnston, Ensay, 1882, CGS, 00317. Duncan was the son of Thomas Johnston who had the first hotel at Little River, which later became Ensay.
37 J Beattie, ‘Exploring trans-Tasman environmental connections 1850s to 1900 through the imperial careering of Alfred Sharpe’, Environment and Nature in New Zealand, vol. 4, no. 1, April 2009, p. 44.
39 This appears to be so regardless of age group. Some of the most popular fairy tales were also derived from the same cultural milieu, e.g. Snow White and the magic mirror, Beowulf and the monster of the deep, Narcissus and Echo, The Frog Prince, Swan Lake/The Twelve Wild Swans.
41 GT, 15 February 1897. Roth had a reading library for 1 s a month: ‘Latest works of Rider Haggard, Ethel Turner Fielding, Marie Corelli, etc, may be had’.
community facilities. Concert programs were often reproduced in local papers, thus providing a reasonable insight into the popular music tastes of GLC settlers. Musical talent was highly regarded in such small and isolated communities. Copeland singled out the otherwise forgotten saddler Davy Small and Sergeant Allison who had excellent voices and were active in many choirs and performances in Warragul. Music was a significant part of Jessie Login’s memories of early Sale, when she described the bark hut home of the Duncan family:

The garden in front of them was a dream of beauty, gay with flowers, the drawing room a bit of Edinburgh transported. On the grand piano the sisters divinely played their duets, and composed music in this primeval forest at Kelvin Grove.

Two worlds in their head, indeed.

Music was one area where women could participate on a slightly more equal level. Gippsland’s papers obscure women, except for reports on fundraising, organising tea meetings or performing as part of organisations like literary societies. These became more numerous in the later years, coinciding with both population growth and progressive social movements.

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42 See, for example, GT, 23 October 1869, hospital fundraiser concert, attendance down due to wet weather. Watery songs were ‘See our Oars with Feather’d Spray’, ‘The White Squall’; GT, 19 January 1881, advertisement for a lecture in the Victoria Hall, Sale on the songs and music of Ireland by Rev. DF Barry in aid of St Benedicts Monastery in Inverness Scotland; GFJ, 2 June 1887, report of the Blind Asylum singers concert: songs were ‘The Queen of the Earth’, ‘Crowning of the Sea’; GT, 11 August 1886, ad for the Moonlight concert fundraiser for Gippsland hospital. A trio called Glorious Apollo to be performed by Messrs Tindall, Ingelton and Futcher.

43 H Copeland, The path of progress: From the forests of yesterday to the homes of today, Shire of Warragul, Warragul, 1934, p. 237.


45 For examples of women performing in public, see Bairndale Advertiser, 27 June 1885, Ladies Benevolent Society Monster Tea Meeting: Mrs Mudie sang ‘Steer My Bark to Erin’s Isle’, Mrs JF Stuart sang ‘Queen of the Earth’, Miss Odgers sang ‘Bend in the River’, ‘...and was considered to be the gem of the evening’; GT, 19 July 1886, Concert at Heyfield for the COE church, Miss Cross from Maffra sang ‘Alton Water’; GT, 23 July 1886, Miss Horstman sang ‘Beside the Sweet Shannon’; GT, 11 March 1897, St Patricks Day concert, Victoria Hall Sale, Duet called the ‘Silver Rhine’ to be sung by Mr P Cox and Miss A Cox.
Figure 3.3: A bark hut in the Neerim area, Archibald J. Campbell, 1877.
The reference to water in song titles occurred often enough to become notable as the newspaper research continued. Due to the ephemerality of sheet music, many of the words of the songs have proved very difficult to track down. However, some have come to light, and some guesses can be made from the titles alone as to what kind of water imagery they conveyed. One of the most popular songs was ‘Come Over the Stream Charlie’, significant to the many Scots in the audience. At the Queen’s birthday holiday celebrations in 1876, the Caledonian Society members performed a song called ‘Children of the Mist’. Both these songs suggest the importance of Scottishness and its link to waterscapes. ‘Sunshine and Rain’ was also a highly popular song. Ada Crossley, Gippsland’s rival to Nellie Melba, was reported in the *Gippsland Times*, on 11 January 1897, saying it was one of her favourite songs. The words to ‘Sunshine and Rain’ are a classic cheer-up tune:

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\text{Lift your eyes to yon Daygiver} \\
\text{Look up higher, hoping still} \\
\text{Tho the rain is on the river} \\
\text{The sun is on the hill.} \\
\text{Tho the rain is on the river} \\
\text{The sun is on the hill.}
\]

The song also reflects a bias towards sunshine and also perpetuates dualism of high and low through the high hill versus low valley symbolism.

Music was a significant part of tea meetings, and the selection of music often conveyed this dualistic nature of thinking. The Presbyterian Tea Meeting reported in the *Gippsland Times* of 27 October 1876, organised by Mesdames Login, Sprod, Hutchison, Miller, Blanch, Coupar, Bearup and Campbell, and the Misses Login, Gresley, Law, Leslie, Monger, Coupar and Campbell, had a heavy musical component. Attendees sang a hymn called ‘There’s a Light in the Valley’, which combined both a high/low dualism with the light/dark one. In addition, they also sang Psalm 100, Psalm 24 and another hymn called ‘Ring the Bells of Heaven’.
Images of water in popular music were echoed in literature. Perhaps the earliest and most direct literary allusion comes from William Odell Raymond. He squatted on the Avon River, and the settlement that grew up around his run was called Stratford. He also built the Shakespeare Hotel for his housekeeper, Mrs Woods. Shakespeare’s popularity ensured that at least some common water references would make it into the popular repertoire. Lucy Bell recalled playing Nerissa in the Merchant of Venice, while John O’Connor credited his education to his father who would read ‘Byron, Moore, Shakespeare, Milton and all the great writers’. Beyond Shakespeare, there is some evidence of discussions of literature that involved water imagery. For example, on 12 April 1870 the Gippsland Times published an article on the life and work of Tennyson, in anticipation of the new poem ‘The Quest for the Holy Grail’. In the late 1880s the Traralgon Literary Society formed. The Gippsland Farmer’s Journal provided a list of pieces read at the October 1887 meeting, which included two poems with watery themes: ‘Traces of Ocean’ and ‘Bingen on the Rhine’. Giblett has discussed extensively the role of nineteenth-century literature in reinforcing the negative attitudes towards swamps, particularly citing a number of Dickens’s publications. As one of the most widely read serialised novelists of his day, Dickens knew his market. Less well-known writers also employed similar kinds of water imagery to convey their stories. For example, the Gippsland Times on 17 April 1891 started a serialised new story called the ‘Secret of the River’ by Miss Dora Russell. Carried over several weeks, this was a combined murder/love triangle story employing a large number of water metaphors, not least of which was the riverside location.

46 For example, just in poetry alone, Wordsworth’s The River Duddon and The Prelude, which describe ice skating on a lake; Elizabeth Barrett Browning’s ‘A Musical Instrument’ using imagery of Pan, reeds and rivers; Walter Scott’s poem ‘The Lady of the Lake’, Longfellow’s ‘Maidenhood’, Milton’s Comus, includes the rebirth of Sabrina as a spiritual goddess of the river and well as Paradise Lost with its four rivers; Samuel Taylor Coleridge’s ‘Kubla Khan’, ‘Where Alph, the sacred river, ran/Through caverns measureless to man’, and his poem about pollution of the Rhine called ‘Cologne’; Alfred, Lord Tennyson’s ‘The Lady of Shallot’; Robert Browning, ‘Child Rolande to the Dark Tower Came’; and TS Eliot, whose poem using rivers symbolism is the epigraph to Chapter 2.
48 Memoirs of John Joseph O’Connor, SLV, MS 10409, MSB 208, p. 5; Memories of the early settlement of Narracan by Lucy Bell, in RM Savige, History of the Savige family, the author, Frankston, 1966, p. 123.
49 GEF, 13 October 1887.
Individually, none of these references amount to much, but, taken collectively, they demonstrate that colonial Gippslanders regularly heard and read a wide variety of European-modelled water metaphors in their public and private entertainments. The celebration of a lush, well-watered rural landscape encouraged colonial readers to look around their local catchments and judge them poorly. More than anything, this survey demonstrates the metaphorical nature of water, with the use of water imagery to describe states of being. In Chapters 4 to 7, I discuss examples pertaining to each aspect of the hydrological cycle.

Trained hydrologies

The GLC’s new residents, almost all deriving from a European nation, were familiar with a variety of altered landscapes and trained hydrologies. This was particularly the case for British migrants. According to Simmons, the British landscape was the most heavily cleared in all of Europe. 51 What

51 IG Simmons, An environmental history of Great Britain: From 10,000 years ago to the present, Edinburgh University Press, Edinburgh, 2001, p. 152. ‘In 1800, England and Wales were the least wooded area in Europe with an estimate total of less than 2 million acres (810 000ha of woodland).’
most took as the natural rural landscape was in fact a product of hundreds of years of conscious change, and the nineteenth century ushered in an even more accelerated process of transformation. The alteration of ecological processes, from the domestic scale upwards, would have been widely accepted as a beneficial part of daily life.

Hydrological manipulation was a key activity in the transformation of ecosystems and landscapes. Many of the hydrological interventions carried out by Europeans all over the globe involved manipulating the wet/dry and the moving/still dualism. Water histories vary according to the place and the philosophical bent of the author, but all of them tell a story of increasing attempts to control water’s natural variability and fluidity. River histories are abundant, reflecting their importance as well as their permanence and visibility in the landscape. River regulation and swamp drainage practices are solely designed to create uniformity – in depth, length, course and available moisture. This was particularly important in England and other countries in Europe that relied on extensive canal systems to transport goods. Hoskins says of the canal system:

> Not only did they bring stretches of water into country lacking in them … with consequent changes in bird and plant life, but they also brought – mostly for the first time – aqueducts, cuttings, embankments, tunnels, locks, lifts and inclined planes, and many attractive bridges, and they greatly influenced the growth and appearance of many towns.

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The engineered waterscape became commonplace. The practice of creating water meadows was widespread in rural areas, as was aquaculture. Hoskins notes that canals were the purveyors of a new world of products that broke down the particularity and regionalism of areas – for example, by introducing standardised building products. The railways produced even more change in social and physical landscapes, and were wider in their spread. No emigrant could have escaped a stark contrast in his or her head between Great Britain and the GLC. As Broome notes in the epigraph that heads this chapter, they inhabited two psychic worlds. Gippsland, with its bogs, terrible roads, periods of extended drought, bushfires and the ubiquitous eucalypt, did not compare well to cool, green, familiar and civilised Europe.

Rivers and floodplains made a logical choice for early settlement patterns. In *The Historic River*, Haslam describes the many ways in which Europe’s rivers from the fourteenth century onwards were used. Grain milling was an important activity around which urban settlements grew. Safe crossing places, fish and birds for protein, building materials, and water for irrigating crops all played a part. Many riparian plants had medicinal or domestic uses – for example, the bark and leaves of *Alnus glutinosa* made a tonic and astringent and *Valeriana officinalis* is still used to treat anxiety.

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56 Elizabeth Gaskell’s novels, dramatised by the BBC, centre around the social upheaval caused by the arrival of the railway into Cranford in the 1840s.
57 There were also religious reasons behind some of the locations. Guillerme demonstrates that in northern France the rivers on which cities were founded were usually associated with gods and goddesses, e.g. the Thara River was diverted by a 2-kilometre-long canal when they could have chosen the closer Liovette River. The name Thara derived from a Gallic god Taranis, the god of light. There was a similar situation with the Iton River, which was diverted to surround the city of Evreux. Most of these cities in later years developed a mythology where the first Christian bishop or martyr does some kind of battle with the local pagan deity, often a river spirit, and drives them forth from the land. AE Guillerme, *The age of water: The urban environment in the north of France, AD 300–1800*, Texas A&M University Press, Texas, 1988, pp. 9–14.
58 Haslam, *The historic river*, pp. 83–6. The dried root and flowers of meadowsweet (*Filipendula ulmaria*) treated diarrhea, influenza and ulcers. *Nasturtium aquaticum* (leafy stems) acted as a stimulant, diuretic and antipyretic. The fresh leaves of mint (*Mentha aquatica*) are, like valerian, still well known for their ability to soothe digestive complaints. The willow (*Salix alba*) was the forerunner of aspirin, giving pain control and fever reduction. Riverside rushes were used to make lights, which were usually all the poor could afford. Making them was a long process. The largest and longest reeds had to be cut, soaked, peeled, bleached in the sun and then dipped in hot fat, all of which would provide light for approximately an hour. One-and-a-half pounds of processed rushes could produce 1,200 hours of light, which was apparently in 1778 sufficient for a family for a year.
Because of rivers’ social, economic and spiritual significance, social conflicts often coalesced around them. Fishing, boating, swimming, hunting, water supply, sanitation, rubbish dumping, tourism, city building and crop growing don’t usually exist in the same sentence, but they regularly exist in the same limited geographical space. This naturally creates conflict between different groups. Waterscapes are, therefore, also powerscapes, reflecting how some classes can impose their water vision and dominate access to resources. Cioc’s work, *The Rhine: An Eco-biography*, is a prime example of the kinds of powerbroking, engineering and conflicts that coalesced around rivers. Given the Rhine’s status as the principal trade river in Europe, these themes are writ large:

The Rhine’s emergence as Europe’s preeminent commercial river was hardly the work of nature alone. Generations of planners, industrialists and civil engineers all contributed to this achievement. Together, they straightened the river’s channel, constrained its floodplain, regulated its flow, and profoundly manipulated its ecosystems, all with the goal of making it obey human visions of safety, efficiency and productivity.

The fights over drainage schemes for flood plains, bogs, marshes and other low-lying land in Europe tended to revolve around competing visions of productivity as well. Peasants with common rights often fought back to retain their access to lands, but most were dispersed. Both Darby and Williams detail the class struggles that accompanied large-scale wetland drainage schemes in Lincolnshire and Somerset in the early modern period. Reclamation was widely promoted as reclaiming a savage nature, and frequently invoked biblical precedent to justify the changes. Outside of Britain, similar schemes and attitudes could be found in the Netherlands, highland Scotland, Amiens, Venice and other parts of northern Italy, southern Spain and even portions of Switzerland.

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60 Cioc, *Rhine*, p. xi.
It would therefore be a rare migrant who had not heard of or seen a canal, a drainage scheme or a dam. From the massive to the domestic scale, control and order were the principles that nineteenth-century Europeans applied to landscapes and waterscapes. Migrants to Gippsland were familiar with trained hydrologies at every level and scale. What we would now admiringly describe as a ‘wild’ river was, to them, a wasted river.

**Water-borne illness**

It is impossible to understand the history of hydrological interventions without considering beliefs about human health, disease and the role of water. The experience of water-borne disease was common, and shaped responses significantly.

Devastating diseases like malaria and cholera were thought to be inhaled from poor air arising from swamps and marshes. Miasmatic theory contributed to an understanding of health in the context of the environment, and the hydrological cycle fared the worse for it. Still waters were singled out as the source of miasma. Germ theory would ultimately replace miasmatic theory, but not before great drainage projects were undertaken.

The connection of illness to the environment originated in ancient Greek medical theories. One of the most significant was the theory of humours, developed by Sicilian-born Empedocles (c. 491–432 BCE), which dominated Western medicine until the beginning of the scientific revolution. In this theory, the human body was controlled by four elements, earth, air, water and fire, which were acted upon by two basic forces, love/unification and hate/division. It is not hard to see here another aspect of dualism. Each force acted upon the element in the body and could increase or decrease its qualities. Water was classified as cold and moist and produced phlegm, while earth was considered cold and dry and produced melancholic black bile. Good health occurred via the appropriate balance.

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of elements and forces. As Glacken shows, this model can be traced to the physical environment in which Empedocles lived. Cold and moist are linked in a Mediterranean climate. In the tropics, hot and moist is a much more likely combination. Because of the widely held belief that the environment affected health, this imbued certain landscapes with beneficial qualities and others with negative ones. The history of malaria is a helpful window on this concept of medical geography.

The mechanism for the spread of malaria was a mystery until Sir Ronald Ross discovered that the vector was the anopheles mosquito, gaining a Nobel Prize for his work in 1902. Until then, the ague claimed countless victims. Many places in Europe with extensive wetlands had high rates of infection, especially Rome. Because of its location by the Tiber’s lowland marshes, malaria killed at least four popes and, in 1623, an outbreak profoundly disrupted the election of Pope Urban VIII. One-tenth of the assembled cardinals succumbed and at least 40 of their retinue died. Urban himself lay in bed for two months, preventing his accession to arguably the most powerful job in Europe. Because of his experience, he encouraged overseas priests in botanical prospecting, which led ultimately to the development of quinine from the Peruvian chinchona tree. Pick estimated that in the nineteenth century approximately 15,000 Romans died from malaria per annum, but he is unable to provide a figure for numbers affected. The desire to prevent malaria drove Garibaldi’s attempts from 1875 to divert the Tiber completely. Thus the power of miasmatic disease shaped world history and the actions of religious and national leaders.

For the majority of people living near seasonally inundated floodplains, there was no cure from shaking fever. All anybody knew was that it came with the summer heat, and that anyone rich enough to retreat to higher grounds had a better chance of escaping it. For example, death rates from malaria in south-east coastal marsh areas of England were three or four times higher

64 Malaria is a parasite that, when it reproduces, causes red blood cells to explode. This detritus depletes the capacity of liver and spleen to perform their own function. Alternating sweats and chills combined with delirium lead to death for countless thousands over millennia. F Rocco, *The miraculous fever tree: Malaria and the quest for a cure that changed the world*, Harper Collins, Great Britain, 2003, p. viii.
than non-marsh areas. The Fens, the Thames, the coastal marshes of Essex, Kent and Sussex, the Somerset levels, the Ribble district of Lancashire and the Holderness of Yorkshire were all particularly afflicted.67

In Australia, a similar practice of escaping to higher ground turned parts of the Blue Mountains and the Dandenongs into summer holiday areas for the colonial elite. Some lobbied, generally unsuccessfully, for Gippsland’s mountain towns to follow suit. In the GLC, mosquitoes could be prevalent in low-lying areas. Brodribb was unusually frank about their impact:

The mosquitoes were dreadfully annoying, both day and night, to us and the horses. I have seen the horses, when hobbled out, completely covered in them and at times they were so irritating they would gallop about in the hobbles and roll on the ground; and although we had beautiful clear water to perform our ablutions in, we dare not approach the creeks and take off our clothes, even to wash our faces and hands, because of these formidable enemies.68

The name malaria derives from the Italian word meaning bad air, which reflects the traditional association of low-lying swamps with stagnant waters. The potential for the ague was a factor employed in the pro-drainage arguments in the East Anglian Fens.69 Draining was the first order solution to removing the sources of malaria, thought to be the noxious smells arising from swamps, sewers and cesspits, followed by adequate sewage treatment. In Gippsland, there are references in the papers to the supposed healthfulness of certain places. For example, in 1885 the Bairnsdale Advertiser praised James Stirling’s attempts to establish alpine meteorological stations in the catchment:

This work will do good service if it only succeeds in educating the denizens of crowded and dusty towns to the existence and eligibility of the ‘summer sanitoriums’ to be met with in these highlands … [the mountains] have ‘the extreme grandeur and sublimity of the landscape; the freshness and variety and ethereal purity of the air on our highest peaks and tablelands, with their most exhilarating and invigorating influence’.70

70 Bairnsdale Advertiser, 11 April 1885. There were two follow-up notes from different correspondents also lauding Stirling’s research in the following week.
Figure 3.5: The now thickly overgrown Mosquito Creek in the Moe Drainage Scheme.

Source: Author.
For comparison, here is a quote from the summer of 1890 describing a polluted pool of water and its assumed influence on health:

> The inaction of the council will very shortly bring about a boom of typhoid. The fever germinating pool at the corner of Foster and York Sts has, during the last few days, been emitting a stench that promises to shortly put a stop to traffic across the lake.\textsuperscript{71}

Here is the high/low dichotomy at its clearest. Elevated land was healthy, low-lying land was not.\textsuperscript{72}

While malaria was wrongly attributed to polluted wetlands, there were other water-borne illnesses that contributed to the strength of miasmatic theory. Typhoid fever and cholera were major killers during the nineteenth century. Like malaria, their causes were unknown until the development of bacteriology, although John Snow proved transmission by water for cholera between 1849 and 1855.\textsuperscript{73} Until then, many diseases were attributed to miasma, and were a major concern for colonial Victorians.

Chappelle has noted that for most of history, the search for clean drinking water has been a dominant force:

> If you combine the natural tendency of water to pick up sediment, solutes and microorganisms with the mounds of filth generated by human and animal habitation, you can begin to appreciate how rare clean, drinkable water has been for much of human history.\textsuperscript{74}

Shunning water as a drink, even while recognising it as essential for agriculture, was based in the common knowledge that unless you had access to a clean artesian spring, there was a very good chance that drinking the local water supply would make you sick. In 1885, the \textit{Bairnsdale Advertiser} was blunt about the quality of local water. ‘Give us water?’,

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\textsuperscript{71} \textit{GT}, 17 January 1890.
\textsuperscript{72} For example, see the \textit{GFJ}, 2 June 1887. ‘One advice I would give to all resident on the land in South Gippsland is, to build on the highest point they can, providing it is not too much inconvenience; because in the flats the fog is much heavier than on the heights, and the atmosphere is more bracing the higher you ascend.’
it asked rhetorically. ‘Dr Youl condemned beer drinking, but he’d hold a very different opinion if he had to drink the water here, and unless rain comes soon, Terry’s and Castlemaine will supercede water.’

As noted in Chapter 2, these hygiene problems were a significant driver for the emergence of the quantitative version of the hydrological cycle and the creation of large-scale water supply infrastructure. The nineteenth century saw a range of moves at both personal and political levels to address the issue of hygiene. According to Haslam, ‘in England it took a dandy, Beau Brummel, in the early nineteenth century, to make personal cleanliness fashionable again’. Florence Nightingale pushed personal cleanliness wider, and included the cleanliness of towns, armies and hospitals among her achievements. Bathing increased in significance, with toilets and bathrooms being incorporated into housing designs and public buildings. In London, Joseph Bramah was installing toilets in private houses from 1778 and his company continued in operation until 1890. The interestingly named Thomas Crapper was his main competitor. Cities began to invest millions into sewerage infrastructure. London’s sewer system is possibly the most well known. The money for it was voted by parliament during June 1858 when the Thames was so rank smelling that parliamentarians were forced from their chambers, handkerchiefs pressed to noses. The Bill became law in a speedy 18 days!

In colonial Victoria, public health, water supply and drainage in Melbourne were major policy issues as well. Dunstan notes how, as early as 1848, Melbournians were being taxed by ‘the want of drainage, the filthy condition of narrow streets, courts and alleys, the prevalence of stagnant pools of water, the habit of slaughtering animals in the city proper and a large unhealthy swamp on the east side of the city known as Lake Lonsdale’. One almanac memorialised the 1854 cholera outbreak

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75 Bairnsdale Advertiser, 25 March 1885, Lakes Entrance correspondent. For other examples, see GT, 17 January 1890, on water supply at the Sale school; GT, 10 February 1890, on poor quality drinking water at Prospect.
78 Halliday, Water: A turbulent history, p. 132.
80 D Dunstan, Governing the metropolis: Melbourne 1851 to 1891, Melbourne University Press, Melbourne, 1984, p. 121.
in London and the rallies in Melbourne it inspired. The awful suffering involved in death from cholera or typhoid created an atmosphere conducive to social and governmental reform. Dunstan describes an emerging apparatus of public health governance in colonial Victoria, which principally centred on populous Melbourne. However, the Town and Country Police Act, extended to the Borough of Sale on 17 May 1863, included a significant range of public health concerns, which the police were required to enforce. As local government spread throughout the GLC, its legislation allowed for the employment of nuisance inspectors, health officers and night men. This extension of bureaucratic control was not without its power struggles between rival projects (witness the acrimony generated in Sale about water supply in the 1870s, discussed in Chapter 5), but the sheer scale of ill health prevailed over opposition. Its importance is reflected in the fact that the 1858 opening of the Yan Yean water supply was regularly memorialised in colonial almanacs.

The experience of ill health related directly or indirectly to water was a powerful force. Generally it shaped major interventions in the hydrological cycle, prompting large- and small-scale drainage operations, centralised water supplies and, later, sewerage disposal systems. These alterations proceeded from a widespread perception that flowing water was clean, which reflected an understanding of the powers of dilution.

**Agriculture and pastoralism**

Australian colonial history is replete with the stories of pastoralism and agriculture. They competed with each other politically and morally for access to land and for the allegiance of settlers and politicians. Even though they were ‘at each others’ throats’, both engage in what is generally a triumphal narrative. Hugh Copeland, for example, called his 1934 history of the Shire of Warragul The Path of Progress. Both agriculturalists and pastoralists were making the country productive against great personal, economic and environmental odds. An example of this narrative is Linn’s Battling the Land: Two Hundred Years of Rural Australia. The title says it all.

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81 Calvert’s Illustrated Almanac for Victoria, 1859: being the third year after the Bisextile, or Leap Year, 6th edn, Printed and Published by W Calvert, Neaves Buildings, Collins St East, Melbourne, 1859, pp. 15 and 18.
82 Dunstan, Governing the metropolis, p. 132.
83 R Linn, Battling the land: Two hundred years of rural Australia, Allen and Unwin, St Leonards, NSW, 1999.
Neither can be successful without making demands on the hydrological cycle; however, they do so in quite different ways and have different impacts. The cumulative impact of the 'war' on rural landscapes, waterscapes and the species that inhabit them has challenged this view of Australia's past, as has a growing understanding of the sophistication and skill of Indigenous land management practices. George Main has argued that colonial settlers were engaged in turning the landscapes and waterscapes into a giant rural factory, where indigenous species have been removed to make way for modern industrial agriculture.84

The success of this economic transformation depended in large degrees upon the use of water as an input. That is, water conceptualised as a resource, a raw material that is to be value added, stripped of its poetry, beauty and ecology. In the GLC, a direct verbalisation of the view of nature as a resource input came from the visiting Duke of Manchester in 1880. At a banquet given in his honour by the Mayor of Sale, JJ English, the Duke said that his travels were 'to gratify a long formed desire to make himself acquainted with the position of the colonies, and to learn something of the vast natural resources represented by their extensive commerce'.85

The Australian colonies were meant to be an integral part of an empire that facilitated the flow of material goods and cultural ideas for the benefit of white Europeans. To achieve this, both agriculture and pastoralism required water. Water was essential for the creation of those tradeable products, and, given the appalling condition of most colonial roads, water was a more efficient and cheaper method of transport where rail was not available. As Worster notes, this is a viewpoint that strips water of any religious, cultural or social worth of its own, so that it becomes merely something quantifiable, to be turned into units of grain or pounds of meat.86 This kind of resource management thinking remains the current paradigm, and has come under fire from a range of writers.87 Viewing water as a resource is one of the key components of the quantitative

85 GT, 29 November 1880.  
86 Worster, Rivers of empire, p. 31.  
approach to hydrology. Such a utilitarian view of the environment was the norm in the nineteenth century, and was facilitated in part by the Christian notion of man’s dominion over the planet.

It was always the intent of the British Government that the Australian colonies should be agricultural in nature. Instead, the mixed bag of convicts, military and free settlers faced an environment that was better suited to wool growing. Pastoralism prevailed as the principal industry until the gold rushes of the 1850s. Map 6 shows the extent of squatting runs in 1857. While pastoralists had less need to clear or drain, there were significant impacts on soil, through erosion and compaction, and on biodiversity from overgrazing. Lunt says that of the approximately 600 square miles of prime grazing native grassland between Sale, Stratford, Heyfield, Boisdale and Maffra, there are only tiny fragments left along rail reserves and in cemeteries. Maps 8 and 9 illustrate vegetation loss between 1750 and 2005.

Figure 3.6: A fragment of grassy woodland, photographed along the road between Glengarry and Cowarr.
Source: Author.

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The agricultural sector began to grow from the 1850s onwards. Men who realised that they were never going to make their fortune on the diggings turned instead to farming, seeking to supply domestic and international markets.

Figure 3.7: Depictions of Maffra from 1882. These montage scenes showing progress were common.
Source: Pictures Collection, State Library Victoria, Accession no. IAN13/05/82/68.

The settlement of Gippsland was directly linked to the experience of drought and over-exploitation of pastoral lands. Within a mere 32 years, Sydney’s Cumberland Plain was filled and exhausted. The discovery of the passage through the Blue Mountains by Blaxland, Wentworth and Lawson was announced in the *Sydney Gazette* on 12 June 1813. While

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Despite this important discovery, it took some considerable time for any great movement of Europeans beyond the Sydney area. According to Perry, in 1821 less than 1 per cent of the population was living west of the range. The delay was partly to do with the Governor’s reluctance to encourage expansion outside the ‘natural prison’ that the topography of the Cumberland Plain represented. Second, official policy was to encourage intensive farming rather than broad-scale grazing. However, a series of poor years caused by a combination of drought, overgrazing and attacks by caterpillars forced a change. Governor Macquarie finally allowed some stock to be moved to Bathurst in 1818, and in 1820 allowed further temporary grazing to take place south-west of Sydney. For a number of reasons, expansion was delayed until the Order in Council of 25 November 1820 marked ‘the real beginning of the great outward movement of pastoralists and graziers which continued into
there were some delays, the emerging, wealthier pastoralists went looking for better pastures, and thus commenced a wave of movement. Every bad season prompted fresh exploration, with apparently little reflection on the part of the pastoralists about their role in degrading the country.91 The combination of water shortage and overgrazing was repeated, turning attention southward to the future state of Victoria in the late 1830s.

There was some contemporary recognition of the role of overstocking in fuelling land exploration. *The Colonist* of 9 July 1840 was blunt on this point when discussing the exploration of Gippsland and the relative merits of Angus McMillan and Count Strzelecki’s explorations: ‘To the graziers whose runs or stations may have been overstocked, and indeed to the public at large, the discovery of this country was an event of considerable importance’.92

Other writers have detailed the competitive nature of exploration in Gippsland.93 Who was first is not relevant to this story. What is important are the explorers’ perceptions about water. The two earliest sources are Angus McMillan’s letter to his employer, Lachlan McAlister, after an exploratory trip in early 1840, and Strzelecki’s account.

McMillan did not find the journeying easy, especially attempting to cross the rivers and wetlands. He viewed the landscape with economically tinted glasses, exemplified in his description of the country around the Mitchell

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91 Governor Brisbane, who held office from 1821 to 1825, gave a substantial impetus to this push for fresh land by allowing expansion in all directions and by instituting a ticket of occupation, which permitted grazing only and which protected the ticket holder from encroachment by other squatters. This ticket system was a delaying tactic developed by Brisbane until decisions were made on the preferable method of land disposal. Perry, ‘Climate, caterpillars and terrain’, p. 8.

92 Reproduced in full in ‘Primary sources: McMillan’s letter to the Colonist’, *Gippsland Heritage Journal*, vol. 3, no. 1, 1988, pp. 39–41. Hume and Hovell were the first to explore the Port Phillip District, as Victoria was then called, in 1824. A decade would elapse before the combined factors of drought, overstocking and capital availability made Gippsland a serious prospect.

93 See P Morgan, *The settling of Gippsland: A regional history*, Gippsland Municipalities Association, Leongatha, 1997, p. 30; C Dow, ‘Tantungalung Country: An environmental history of the Gippsland Lakes’, PhD thesis, Monash University, Melbourne, 2004, p. 41. Angus MacMillan met the Omeo squatters James MacFarlane and George McKillip in June 1839. At this time, McMillan either met or heard of the explorations of Edward Baylis, Andrew Hutton and Walter Mitchell who had travelled south of Omeo and on to the Lakes. Edward Baylis reached the Lakes in November 1838, and was forced to return to the Monaro because his party had run short of rations. Andrew Hutton, who was an employee of William Morris of Nungatta on the Genoa River to the east of the Lakes, camped at Lakes Entrance. He alleged an attack by Aborigines, which forced him to abandon the cattle. A different account of this, sans violence, was given some years later to Alfred Howitt, by a Brabralung elder named Tulaba. Where they both agree is the impediment to stock movement that the waters represented.
River floodplains as ‘the most delightful country I ever beheld, well adapted for cattle, sheep or cultivation’. McMillan was on a business trip, and his single task was to find the best pastoral land. This meant fresh green grass (those same species they never recorded) and plenty of water for stock to drink. The abundance of both made the obstacles of wetlands and difficult river crossings seem less problematic. He sounds, in fact, almost incredulous when he wrote: ‘Country still improving, if it is possible to do so’.

Water’s presence on a run in safe and accessible quantities materially helped the production of stock numbers. In the annual cycle of production, water was used at every stage. Access to clean water was critical for drinking water for stock and station workers. Accordingly, competition for runs with reliable surface water sources was fierce. Any map of the location of squatting homesteads is in effect a proxy map of water resources.

Figure 3.8: Eugene von Guerard’s painting of Angus McMillan’s Bushy Park, 1861, depicting a small wetland in the foreground with cattle drinking. It is also notable for its illustration of the flat, lightly wooded, open country so favoured by settlers.

Aside from drinking water, there were three key processes associated with the squatting industry that required water as an input. These were sheep washing, boiling down and tanning, with boiling down having perhaps the worst water-quality impacts. Boiling down generated large amounts of organic residue, which were usually dumped in the nearest creek.

96 This rather gruesome process created a valuable, exportable product called tallow, used in soap and candle making, which continued until the advent of refrigeration. Australian Academy of Technological
The construction of washpools also had an impact on stream morphology, with consequent erosion and incision of streams that permanently changed their form, process and ecological function. There is also good reason why tanning is classed as a noxious industry and is subject, these days, to strict impact assessment procedures. The environmental effects of all these have largely missed the notice of historians.

Agriculture was equally dependent on water as an input but in different ways. Pastoralists sought out flowing surface waters, while agriculturalists depended more on rainfall. More importantly, it was the distribution of rainfall throughout a season that had the greatest impact on crop production. Too much or too little rain at the wrong time could spell disaster, as could two other forms of precipitation, hail and frost. Gippsland farmers grew a wide variety of crops, and some took considerable risks in experimenting with plants like flax, chicory and arrowroot. Fruit and vegetables were either homegrown or supplied by local (often Chinese) market gardeners operating around the larger towns.

Little is known about domestic and small irrigation practices in the catchment in this period. In a photograph of the Chinese market garden at Walhalla, it is possible to see some handmade channels diverting water to crops. There is some evidence to suggest a link between the presence of Chinese market gardeners and the development of irrigation for crops in the 1880s, and it is certainly feasible that domestic gardeners may have learnt from the Chinese. Map 7 marks the location of Chinese market gardens in Sale, very close to Flooding Creek. There were also many ex-diggers who were familiar with the construction of water races, so there may have been small-scale domestic irrigation of gardens. Irrigation was seen as insurance against the fickleness of the hydrological cycle, which could not be relied upon to generate the steady flow of sellable crops that the settler economy demanded.

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Sciences and Engineering, *Technology in Australia 1788–1988: A condensed history of Australian technological history and adaptation during the first two hundred years*, University of Melbourne, Melbourne, 2000, ch. 1, pt 4. Knowledge of the distribution of boiling plants in Gippsland is rudimentary. Adams refers to a plant close to Port Albert, and this is confirmed by the listing for Arthur King, JP, in the 1851 *Victoria Directory for Country Districts and small towns*. N Cox, ‘Residents of Gipps’ Land 1851’, *Gippsland Heritage Journal*, vol. 8, 1995, p. 48. Buckley had one on his run, which remained in operation for years; for example, he recorded boiling down on 25 January 1849, for several days in early July 1849, 10 October 1853 and on 1 March 1870. Porter refers to a large plant at Flooding Creek, but, unhelpfully, does not give a reference. Daley mentions one at The Heart, with sheep yards that were south of the Friendly Society’s grounds, Daley, *Story of Gippsland*, p. 42. The Heart was close to Flooding Creek and it is unclear whether this is the one Porter referred to.

97 Pers. comm., Sara Beavis, 30 September 2011.

98 *GT*, 18 November 1865, 29 December 1876.
This was backed by a steady stream of claims about the moral desirability of agriculture. In a quote echoing the Lord’s Prayer, the *Gippsland Times* declared, in its first year of publication, that ‘it is agriculture which spreads the great and bountiful table at which the mighty family of civilized man receives his daily bread’.99

This kind of sentiment was common during the land selection era, when squatters were pitted against farmers. To his cost, Governor Gipps had opposed the wholesale spread of squatting because it reduced Crown options, the options of future citizens of the colony and created greater expense. He understood the British Government’s preference for agriculture, which it saw to be morally superior to pastoralism because it produced settled, cleared, permanent and hopefully self-supporting areas.100 The aim of substituting an English-style rural yeomanry whose work ethic would subdue the wilderness was enshrined in legislation commencing in 1865.

Stephen Legg has examined in detail the comparative successes and failures of selectors in South Gippsland.101 Those who were lucky enough to secure flattish, moderately elevated, lightly wooded and well-drained selections had the easiest route to ‘progress’ because such lands required less investment of capital and sheer sweat to make them ‘productive’. Map 4 shows a detail of the topography of northern Gippsland, showing the sharp change from hills to flats. Map 5 shows how the earliest runs focussed on the rivers in this gently undulating country. John O’Connor recalled the difficulty of forest land:

> So in all we had about 900 acres of dense forest, in no place could you see more than fifty yards ahead of you … The settlement [of Narracan] began on the outskirts of this appalling forest.102

Legislation thus supported the wholesale destruction of Gippsland’s vegetation, as selectors were compelled to clear and fence as part of their conditions to attain freehold title. Drainage was not a condition, but selectors did include it in their estimations of improvements.103 While

99 *GT*, 11 December 1861.
100 J Powell, *Environmental management in Australia, 1788–1914*, Oxford University Press, Melbourne, 1976, p. 23. Powell went on to note that Gipps was cognisant of the government desire, but realised its impracticality. Instead, he attempted a compromise position and pleased no one.
102 Memoirs of John Joseph O’Connor, p. 11.
103 As far as I am aware, no study has been undertaken of land selection files to ascertain the extent of local drainage practices.
collectively considering the native land and waterscape of the GLC as nothing special, settlers enthusiastically set about utilising its individual resources. Unable to perceive the forest, wetland or grassland, they saw potential products: sleepers, palings, ceiling joists, maize, sheep, skins, oats, cows. And yet, the operation of the hydrological cycle was essential to the production of them all.

Figure 3.9: Gregory’s Cottage, Cooper’s Creek, Walhalla Road, c. 1885.
Source: Pictures Collection, State Library Victoria, Accession no. H40181.

The assumed social, cultural and moral benefits of agriculture regularly received support in Gippsland papers. For example, in 1876, land around the former Heart run was released for selection. The *Gippsland Times* published a letter that heavily criticised the size of the lots being released, suggesting that they were unaffordable for the small family farmer. ‘NG’ (not Nehemiah Guthridge the mayor, who wrote in the following issue saying it wasn’t him but that he agreed with NG’s sentiments) wrote how such a decision could undermine the yeoman, utopian ideal. The large size of the lots would privilege men of capital, or pastoralists:

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For it was a dream of a rural population settled upon the rich meadow lands of the Heart, a dream of waving corn fields and thriving homesteads, of golden harvests and merry autumn gatherings. A dream too, of a well to do prosperous yeomanry, with troops of stalwart children crowding round the cottage doors, or merrily wending their way to parish church or school; a dream of such a prosperous future for North Gippsland, that its great reproach in the eyes of strangers, an indifference to agricultural enterprise, would be for ever removed, and that we should be able to adopt as our own, with some title to its use, that grateful motto of a rural people ‘Speed the plough’.

NG clearly links small farms, family and Christianity with qualities of rootedness and prosperity. He also transplants the halcyon, seasonal imagery of Northern Europe, apparently not recognising the existence of drought and flood and fire. Speeding the plough was a common image, and explains the endless observations of rural correspondents on the number of acres under crop in each district.

The importance of this agrarian imagery as an ideology is noted by Goodman. The gold rushes profoundly disturbed the agrarian ideal, as rural men rushed off to dig up streams, and gardens and farms lapsed into disarray. Conservatives deplored the effects of the gold rush because it uprooted people from traditional agrarian ways of life. Radicals, on the other hand, employed the agrarian and yeoman ideal and the supposed moral benefits that accrued from it to bolster their opposition to the squatter’s pastoral empires. Either way, the image of the cultivated farm with its frill of English flowers was seen as the epitome of progress, but it could not be achieved without water. Water was the foundation for both the mythical country landscape and the actual country landscape.

**‘Progress’ in ‘taming the wilderness’**

If colonial Gippslanders had a secular faith, they believed in progress. The creation of towns, schools, churches, mines and farms were all the more significant for the ‘primeval’ conditions from which they were wrung.

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105 *GT*, 14 March 1876.
Figure 3.10: The A1 Mine at Gaffney’s Creek, Thomas Henry Armstrong Bishop, c. 1901.  
Source: Pictures Collection, State Library Victoria, Accession no. H36688.

Figure 3.11: New Public Hall, Sale, FA Sleap engraver, 1879.  
Source: Pictures Collection, State Library Victoria, Accession no. IAN21/02/79/21.
3. THE EARTH’S THOUGHTFUL LORDS?

These included untrained rivers that flooded and dried up in the same year, extensive wetlands, steep ridges and gullies, thick forests and scrub, fires and snakes, and the Indigenous inhabitants, who did not see the land as a wilderness to be tamed.

The notion of wilderness is a dualism that sets up a split between wild and civilised, stagnation and progress, habited and uninhabited. This is what Oelschlager describes as ‘a bifurcation that the human story lies in our triumph over a hostile nature’.108

Our prevailing definitions of wildness and wilderness preclude the recognition of nature as a spontaneous and naturally organized system in which all parts were harmoniously interrelated: in consequence, human kind has believed itself compelled to impose order on nature.109

Colonial Gippslanders, indeed almost all European migrants, shared this metanarrative about their new home. This broader definition of wildness naturally included the hydrological cycle. At base, the imposition of order meant mitigating variability, deflecting the force and damage of floods, making wetlands into dry lands and blunting the severity of drought in any way possible.

The ideology of progress was well established before the majority of settlers arrived in Gippsland. In eighteenth-century Scotland, a host of organisations dedicated to the idea formed including the Society of Improvers (in 1727), the Edinburgh Society for Encouraging Art, Science, Manufactures and Agriculture (established in 1755), the Select Society (1754), the Philosophical Society (1737) and, most prestigiously, the Royal Society of Edinburgh, begun in 1783.110 Their establishment was the consequence of increasing technologies and the discoveries of science that allowed the elite to imagine a life without ecological limits. It became possible to think of human history as the story of advance, not decline.111 In particular, a la Adam Smith, this advance was predicated on the increasing desirability of individual wealth, prosperity and the acquisition of consumer goods, which in turn promoted capital investment in production.

It is perhaps easiest to illuminate the progress philosophy of nineteenth-century migrants by illustrating what it was not:

If there is to be real and sustainable progress, it must be a continuing enhancement of life for the entire planetary community. It must be shared by all the living, from the plankton in the sea to the birds above the land. It must include the grasses, the trees and the living creatures of the earth. True progress must sustain the life giving purity of the air and the waters. The integrity of these life systems must be normative for any progress worthy of the name.112

A definition of progress that included ecological processes and species other than humans would have been if not unthinkable, then certainly unacceptable to the majority. There were a minority of colonists who expressed regret at the environmental changes they wrought, whilst simultaneously maintaining it was all for the greater good. At a dinner in his honour in 1864, Surveyor WT Dawson regretted that:

in the course of improvements now being effected by the Borough Council, he saw the stumps of trees that he recollected as the giants of the forest, that were venerable from age before the white man ever cast eye on the continent of Australia – now being removed to afford greater facilities for the busy traffic of the township of Sale.113

Ecological changes were noted but, as Synan summed up: ‘It was puzzling, but scarcely anyone took time to inquire or to care’.114 More often than not, the changes were lauded:

I confidently believe that the time is not now distant when the few gaps in the virgin forest, made by the present settlers will extend over the whole lower district, when in place of somber gum forest and tea tree scrub, the make shift hut and half cleared paddocks, the eye of the travellers will rest for miles upon waving cornfields and well stocked homesteads of a happy and prosperous race of farmers.115

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Their assumption of their own superiority separate from nature, and their superiority to other ethnic groups, was made possible by their religious beliefs. It was also supported by a consumer-based industrial revolution, which made the colonies seem like just so much raw material.116

There is abundant evidence from the newspapers to confirm this. Progress (preferably of white well-born men, and then women) was their pre-eminent theme. Correspondents were either lamenting the lack of it or celebrating its achievement. In a letter to the editor, a member of the Church of St Paul’s criticised Bishop Moorhouse for describing Gippsland in terms that made the place seem like it was full of ‘savages’.117 Progress meant different things to different people, but generally it never meant ecological preservation and protection. In its first year of operation, the Gippsland Times championed the twin ideas of progress and taming the wilderness. In an editorial about the possible opening of the Lakes, the editor lamented the feuding between various rival groups about whether it should be rail or a permanent entrance. He went on to warn readers that unless they resolved their differences and worked cooperatively ‘the country which gave such promise of future prosperity, will gradually dwindle and decay, returning back to the non-productive state in which it was first discovered’.118

In 1887, the Glenmaggie correspondent associated progress with ease of travel, and therefore access to entertainment and learning.119 Daniel Wilson of Longford also supported the importance of local opportunities for learning. In April 1890, he expressed regret at the cessation of Sale Mechanic’s Institute’s winter lectures, calling it a retrograde step ‘in the march of intellect’.120 In the same issue, notice was given of a new journal called the Scientific Australian, ‘a monthly journal of industry and instruction’. Newspapers regularly reported on activities at Mechanic’s Institutes, and they were always listed in directories.121 The newspapers

117  GT, 21 March 1877.
118  GT, 18 December 1861.
119  GT, 1 July 1887.
120  GT, 30 April 1890.
121  Butler’s Woods Point and Gippsland General Directory of 1866, p. 68, reported that the Sale Mechanic’s Institute has ‘Colonial and English papers and periodicals; and the library contains about 1000 volumes of good books. The Committee get up a course of about twelve lectures yearly, which are delivered by gentlemen in the neighbourhood gratis’. It also employed a librarian.
make it clear that progress, learning and industry were valued in the community, and readers were encouraged to attend local events and institutions to better themselves and better Gippsland.

Frequently progress was associated with new businesses started, public works, building activity, harvest yields and population growth. This was perhaps most brazenly summed up by the *Gippsland Farmer’s Journal* in its first year of operation from Traralgon. Its first issue declared that its motto was ‘ADVANCE TRARALGON’. Six months later, and employing the dark versus light dualism, it trumpeted:

‘LET THERE BE LIGHT’. Traralgon is moving swiftly in the progressive path: now tradesmen are coming in rapidly, and building is brisk on all sides.123

Reporting on the borough statistics in 1876, the *Gippsland Times* said: ‘These figures indicate an increase in the material prosperity of the town, and, though the progress has not been so rapid as to be startling, it is nevertheless satisfactory to know that Sale is progressing’. Public works, which frequently involved management of water, were very much a part of this ideal of progress. Perhaps the sole claim to innovation in Australian hydrological development that the GLC can claim is the successful development of groundwater for town supply in Sale. Certainly John King of Nambrok thought so, referring to it in toasts at the banquet for the Duke of Manchester, calling it indicative of enterprise and public spirit. Swamp drainage, too, was seen as a sign of progress, banishing the potential for illness and creating productive agricultural lands from watery wastes.

122 *Bairnsdale Liberal News and North Gippsland District Advertiser*, 14 May 1879, reporting on a lecture given by the government statistician in Melbourne, Mr HH Hayter, on the ‘Colony of Victoria: Its progress and present position’. *GT*, 19 March 1896, a lengthy article discussing government returns on agricultural development across the state. It gave detailed on expenditure on improvement for each shire, but the opening statement lamented how far Gippsland was lagging behind two northern shires, Numurkah and Bonang. The development of various industries engaged a progressive rhetoric. For example, the opening of cheese and butter factories were huge developments locally, and were celebrated as such.
123 *GFJ*, 27 January 1887 and 2 June 1887. Capitalisation in original.
124 *GT*, 27 January 1876.
125 *GT*, 29 November 1880.
For others, it meant bringing Christianity to a hitherto uncivilised land, sometimes at the business end of a gun. Brodribb in *Recollections of an Australian Squatter* described his approach to the Kurnai at the founding of Port Albert:

> We gave the overseer full instructions how to act should they ever make an attack upon them again. Not to fire over their heads but to shoot at their legs, and if hard pressed, to kill one. My experience tells me, under such circumstances, half measures will not do. Show them at once you are determined not to trifle with them and above all, keep them at a distance. They are never to be trusted in a new and unexplored country.

Leaving their overseer behind, Brodribb and his party set out to explore the GLC. He concluded that ‘it was altogether a new country, and only inhabited by savages’. Savages inhabit wildernesses, while civilised white men transform wilderness and savages into productive farms and docile Christians.

There was hardly any change in attitude in three decades. Frederick Hagenauer wrote in 1874:

> Many people acquainted with the manners of the Blacks regarded it as almost an impossibility that they could be induced to settle down at one place, to take to industrial habits, become civilized and above all to become Christians. Successive annual reports, however, have clearly shown that by God’s blessings, with much patience and persevering labour a great change has taken place.

Hagenauer tells us much about the ideal citizen in his contrast between the Kurnai and what he has been attempting to instruct them in. As late as 1891, the primeval wilderness imagery was being used at the highest levels. The *Gippsland Times* reported the Minister for Lands would exercise forfeiture powers on unimproved selections ‘in their primeval condition’ in order to keep up with demand.

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126 Brodribb, *Recollections of an Australian squatter*, pp. 33 and 38.
127 Letterbooks of FA Hagenauer, vol. 2, 1874, NLA MS 3343.
128 *GT*, 11 February 1891.
Implicit in progress is an assumption of movement, a linear progression from one lesser condition to a more advanced and desirable one. John O’Connor said of his father’s determination to take up a second selection: ‘No one could put him off it, and no one could understand why he should drag his family back to the awful wilderness again, and I can remember my Mother being in tears at the thought of it’. All of the quotations so far in this section echo movement, regardless of whether it was personal growth, as in the case of Daniel Wilson, or actual, as in Traralgon’s building boom. Most importantly, the dualisms of movement and stillness, progress and stagnation, and cultivation and wilderness were assigned values of desirable and undesirable respectively.

The movement of water will be a particular focus in Chapter 5. For the time being, it is enough to suggest that colonial Gippslanders projected their cultural assumptions onto the waters of the catchment. For people who had given up every familiar notion of home, family and community, it would not do to stand still. The enormous gamble of squatting or selecting in the difficult environment of colonial Gippsland meant that progress was imperative. Migration was a statement of hope, an aspiration to a better life. In retrospect, it doesn’t appear so benign, given the assumption of domination over native people and appropriating resources. But taken in their own terms, a better life meant individual landownership, and the substitution of a basically British approach to rural landscape. As McCleary and Dingle memorably say: ‘In the manner of the time, [Gippsland] would be a man made landscape, with woman made trimmings’.

Conclusion

The epigraphs of this chapter suggest the conflict between the imagined world of Europe, with its green pastures and flowing brooklets, and the daily experience of rural life in the Australian bush, replete with snakes and supposedly melancholy gums. In the previous chapter, I demonstrated how colonial Gippslanders had a view of the hydrological cycle that blended aspects of the divine design version and the hydraulic version. The title of this chapter, derived from a poem by Wordsworth, captures

129 Memoirs of John Joseph O’Connor, p. 4.
The word ‘lord’ suggests their own surety that they were made in God’s image and thus were lords of the earth, as decreed from on high. The thoughtful aspect suggests their increasing hydraulic knowledge, gained through study and application. Convinced as they were of the moral integrity of the colonial project, and possessed of an increasing amount of technical skills, they did genuinely perceive themselves as the earth’s thoughtful lords.

This chapter has demonstrated a ‘common water’ that existed in the hearts and minds of the GLC settlers. This was based upon the combination of several factors, namely:

- a religious tradition that valued surface water above all, and that ascribed high moral value to cultivation compared to other land uses
- a literary and musical tradition that arose in a physical environment where surface water was the norm
- regular exposure to water-borne diseases
- settlers who came from countries with a long tradition of altered waterscapes
- settlers who were principally engaged in economic activities that were entirely dependent upon surface water.

This combination would, in the long run, have substantial ecological ramifications for the catchment. In the following four chapters, I detail the actions of the GLC settlers that would help to create these intractable problems. I look in detail at their understanding of hydrology, and each chapter will address one of the four key components of the hydrological cycle.
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