
Australian Forest History Society

Newsletter No. 79
April 2020

*"... to advance historical understanding of human interactions with
Australian forest and woodland environments."*



Tony Fearnside OAM
28 June 1934 – 18 April 2020

See page 4



Newsletter Editor: Peter Evans
AFHS Address: PO Box 5128, KINGSTON ACT 2604
Web: www.foresthistory.org.au
Twitter: <https://twitter.com/AustralianFHS>

peter@peter-evans.com.au

ISSN 1033-937 X



MEMBERSHIP

Membership of the Australian Forest History Society (AFHS) Inc is A\$25 a year for Australian and New Zealand addressees or A\$15 a year for students. For other overseas addressees, it is A\$30.

These prices do not include GST as the AFHS is not registered for paying or claiming GST. **Membership expires on 30 June each year.**

Payment can be made by cheque or money order, or through Electronic Funds Transfer.

Cheques or money orders should be made payable to the AFHS and sent to:

Australian Forest History Society Inc.
 PO Box 5128
 KINGSTON ACT 2604

Electronic Funds Transfer can be paid into:

Commonwealth Savings Bank
 BSB 062 911
 Account No: 1010 1753

Please also return this form if you pay by EFT or send an e-mail to the Treasurer advising that you have joined/renewed - Fintan.OLaighin@awe.gov.au.

Name:	
Address:	
E-mail	

<input type="checkbox"/>	Please mark the box if you would like a receipt - otherwise an acknowledgment will be sent by e-mail.
--------------------------	---



NEXT ISSUE

The newsletter is published three times a year and the next issue should be out in August 2020.

Input is always welcome.

Contributions can be sent to Fintan.OLaighin@awe.gov.au.

IN THIS ISSUE

Series Editor's Note 2
 Savage Summer 3
 Wollemi Pine Saved from Fire 4
 Vale Tony Fearnside OAM 4
 A Personal Perspective 5
 Historic Stringers Knob Fire Spotting Tower Lost . 6
 Burning Bridges 7
 Timber and Bridges 8
 2020 Vision – Hutchins and Ellis 9
 A Job with the Forestry 11
 AFHS Member Recognised in Australia Day Honours 2020 11
 Restoring Forests in Times of Contagion 12
 Digitisation of ANU Theses 12
 Logging by Lidgerwood in Victorian Forests 13
 The Baptist Cone 16
 Port Fairy Lifeboat 17
 Evans' Sawmill and Tramway, Halls Gap, Victoria 18
 Environmental History Network Inviting Contributions for its Website 18
 Environmental History Societies and Networks Worldwide 18
 New Books and Publications 19

SERIES EDITOR'S NOTE

By Fintán Ó Laighin

The April issue has been put together by Peter Evans and, with so much of the country affected by fires during 2019-20, he has included many articles on bushfires. Thank you to the writers and editors – Tom Griffiths and Peter Browne (*Inside Story*) and Margret J. Doring (*Engineering Heritage Australia*) – for allowing the AFHS to reprint your work.

Just before this issue was finalised came the news that Tony Fearnside had died. Tony was an early member of the AFHS and known to many through his work with the Institute of Foresters of Australia, the Friends of ACT Arboreta/Friends of ACT Trees and the Southern Tablelands Farm Forestry Network. He will be missed by many people. There is a brief article about Tony on page 4.

Our last issue included news of a proposal for a conference in November 2020 to mark the 20th anniversary of our "Perfumed Pineries" conference in Coonabarabran in November 2000. I haven't heard from organiser Stuart Pearson lately, but hopefully the conference will still be held, if not in November, then sometime in 2021. There are a lot of conferences being cancelled or rescheduled as a result of the coronavirus pandemic. On page 18, we include an invitation from the Environment History Network to send it papers from such conferences for it to post on its website.

SAVAGE SUMMER ¹

By Tom Griffiths

Australians must learn a fine-grained language of fire in all its different localities

As fires engulf us in this terrifying summer, some politicians and commentators continue to duck and weave around the link between extreme weather events and climate change. One of the arguments they deploy to dismiss the effects of global warming is that we've always had bushfires in Australia. It's true, we have. Bushfire is integral to our ecology, culture and identity; it is scripted into the deep biological and human history of the fire continent. But bushfire is various and it, too, has a history – and a frightening future. The long, gruelling fire season of 2019-20 has declared something new in modern Australian experience, something we can indeed call unprecedented, and a product of climate change.

I don't use that term "unprecedented" lightly. In 2009 I resisted its use to describe the Black Saturday firestorm, for that fire had the features of a phenomenon Victorians knew all too well. Black Saturday was the latest in a lineage of frightening, fatal firestorms that have roared out of "the fire flume," as historian Stephen Pyne calls the hot northerly winds that sweep scorching air from inland Australia into the forested ranges of Victoria, South Australia and Tasmania. In that region, bushfires strike every year, firestorms every few decades. Firestorms are bushfires of a different order of magnitude; they cannot be fought; they rampage and kill. The years of the great Victorian firestorms are burnt into the memories of bush dwellers: 1851, 1898, 1919, 1926, 1932, 1939, 1962, 1983 and 2009. These dates with their death tolls are the signature of a distinctively deadly fire region, produced by a cocktail of weather, topography and trees.

The firestorms are intensified by particular species of trees – the mountain ash and the alpine ash – that conspire to create a raging crown fire that kills and reproduces the whole forest *en masse* and takes people with it. These tall ash-type eucalypts need a hot, fast-moving crown fire to crack open their seeds, upon which their regeneration uniquely depends. Firestorms in these normally wet mountain forests erupt only after long droughts and they concentrate whole summers of fire and anxiety into single, violent events. The ecology of the forest depends on firestorms, so we know they happened also under Aboriginal ecological management. In the last two hundred years, the cultural history of the forest has exaggerated and intensified this natural rhythm.

In 2009 it was the familiarity of the Black Saturday firestorm that horrified me. The event was clearly exacerbated by climate change, but the recurrent realities were more haunting. As I wrote at the time ², "the 2009 bushfires were 1939 all over again, laced with 1983. The same images, the same stories, the same words and

phrases, and the same frightening and awesome natural force that we find so hard to remember and perhaps unconsciously strive to forget." As a historian of the fire flume, I was disturbed by Black Saturday's revelation that we had still not come to terms with what we had already experienced.

The long fire season of 2019-20 is continental in scale and has a whole new character. In an article for the *Australian* on 4 January, Gerard Henderson used the history of the Victorian firestorm to dismiss claims of novelty for this season's fires. We have to be much more discriminating than this. One cannot talk about fire without being deeply attentive to locality, ecology and history. It is dangerous to generalise across ecosystems and fire regimes, as Victorians found on Black Saturday. There were so many deaths at home that day because people living in a distinctively deadly fire region had been reassured with a *national* survival strategy: that staying and defending was a genuine option in those extreme conditions. Such advice may have worked in many woodland areas, but it was a death sentence in the firestorm capital. It is essential for our survival and our culture that Australians learn a fine-grained, local language of fire, such as Aboriginal Australians developed over millennia.

The arrival of Europeans on the continent from the end of the eighteenth century catapulted the country into a spiralling, accelerating fireball of change. Global warming is the latest force to transform Australian nature, following continental drift, the ice ages, the firestick, cultivation, pastoralism, clearing, industrial agriculture and urbanisation. Human-caused climate change is transforming our continent before our eyes, in our own lifetimes. Droughts are becoming more frequent and severe, rainfall patterns are changing permanently, water is being trucked to inland towns, species are being pushed to extinction, and forests that evolved to burn are experiencing fire of different intensity and frequency such that some are no longer forests.

This summer, coming after severe drought and more record heatwaves, has tipped fire patterns into widespread rogue behaviour. It's not unusual for Australians to have smoke in their eyes and lungs over summer – the great fires of 1851, 1898, 1926, 1939 and 1983 are remembered also for their weeks of smoke and for the black leaves of warning on lawns and in swimming pools. In the 1920s and 30s, bush workers on the watch for fire learned to identify *fresh* smoke in the acrid forest air. In 2002-03, the alps burned for months before culminating in their sudden defining invasion of Canberra on 18 January.

There is much that we are experiencing today that we can find also in patterns of the past. But the smoke is worse, more widespread and more enduring, the fires are more extensive and also more intense, NSW fires are behaving more like Victorian ones and some Victorian fires are more like those north of the border, and the "Border

¹ First published in *Inside Story* on 8 January 2020 – <https://insidestory.org.au/savage-summer>. Reprinted with the permission of the author and *Inside Story* editor, Peter Browne.

² Tom Griffiths, "We have still not lived long enough", *Inside Story*, 16 February 2009, <https://insidestory.org.au/we-have-still-not-lived-long-enough>.

Fire" symbolically erased the boundary anyway. Australia has been burning since August, from Queensland to Western Australia to Kangaroo Island to Tasmania, from the Adelaide Hills to East Gippsland, in the Great Western Woodlands and up and down the eastern seaboard. And the Victorian fire season, where most lives are generally lost, is only just beginning.

Victorians always give their firestorms names, generally after the day of the week they struck. There are enough "Black" days in modern Australian history to fill up a week several times over – Black Sundays, Mondays, Tuesdays, Thursdays, Fridays and Saturdays – and a Red Tuesday too, plus the grim irony of an Ash Wednesday. The blackness of the day evokes mourning, grief and the funereal silence of the forests after a firestorm. This summer will leave a black legacy, but there is no single, culminating event and no end to anxiety and fear, no defining day and no day-after yet. Individual Black Days have fused in a Savage Summer.

Tom Griffiths is author of *Forests of Ash: An Environmental History* and co-author with Christine Hansen of *Living with Fire*. His award-winning essay on the Black Saturday fires was published in *Inside Story*. <https://insidestory.org.au/we-have-still-not-lived-long-enough>

WOLLEMI PINE SAVED FROM FIRE



Wollemi Pine. Photo Credit: NSW Parks and Wildlife Service.

The *Sydney Morning Herald* of 15 January 2020 carried an article by Peter Hannam relating to the efforts to protect the only known wild population of the Wollemi Pine (*Wollemia nobilis*) from the lightning-sparked 512,000 hectare Gospers Mountain fire north-west of Sydney. The work was carried out by the Rural Fire Service and the National Parks & Wildlife Service using water-bombing aircraft dropping fire retardant on nearby forest to keep the fire front away from the remote gorge, which would seem to be the only refuge of the genus. Specialist firefighters were also winched from helicopters to install an irrigation system to increase ground moisture in fuels around the trees. The work was carried out in secret to protect the location of the "dinosaur trees", as pathogens brought in by visitors have the potential to cause severe damage or even total loss to the remaining wild population. The trees have been around for up to 200 million years and were once more widespread, but were believed to only exist in the fossil record until discovered in 1994. Although some of the wild trees were mildly singed, the population as whole has survived, vital since it is essential that the surviving trees retain the ecosystem in which they grow. Cloned examples are being grown in nurseries and arboreta worldwide.

VALE TONY FEARNSIDE OAM

Just before this issue was finalised for publication, John Dargavel forwarded advice from the Institute of Foresters of Australia (IFA) that Tony Fearnside OAM, had died on 18 April 2020. The IFA is the professional body for foresters, and Tony was an active member.

Tony was an early member of the AFHS and many of us also knew him from his involvement with the Friends of ACT Arboreta (since renamed Friends of ACT Trees) and the Southern Tablelands Farm Forestry Network.

Given that one of Tony's professional roles was Chief Fire Control Officer for the ACT, it is somewhat appropriate that his death is marked in an issue in which forest fire has a major focus.

In January 2015, Tony was awarded the Medal of the Order of Australia. His citation doesn't mention forests or forestry or fire management, but rather refers to his "service to the community of the Australian Capital Territory". Given the broadness of his interests, that probably sums him up quite well.

A lot of people will be saddened to hear the news of Tony's death.

The note in the IFA newsletter states:

Many of us had the privilege of knowing and/or working with Tony, who passed on 18 April; there's a nice precis of his professional life and work here. <https://www.anu.edu.au/alumni/our-alumni/spotlight/mr-anthony-fearnside-oam>

Amongst other things, Tony was a long-standing active member of our Institute from his joining in South Australia around 1963 to his Chairmanship of the ACT Division and beyond.

He was Head of ACT Forests and Chief Fire Control Officer for ACT for many years, and later President of ACFA (Association of Consulting Foresters of Australia), now part of the Institute.

We extend our condolences to Janice and family.

The notice in *The Canberra Times* on 22 April advised:

Tony Fearnside
 28 June 1934 – 18 April 2020
 Dearly beloved of Janice.
 Father of Karyn, Ruth, Alex and Luisa and
 their partners.
 Grandfather of Jenara and Yilani.
 Brother, uncle and friend to many.
 A private celebration of Tony's life will be
 held on FRIDAY, 24 April 2020.

Due to the situation with the coronavirus pandemic, the celebration of his life was a private ceremony with only family members attending. However, it was screened live on YouTube and is available at <https://www.youtube.com/watch?v=Oemn0BEob28>.

Tony's website is at <https://tonyfearnside.com>.



A PERSONAL PERSPECTIVE *

By Margret J. Doring, FIEAust., CPEng., M.ICOMOS.

How does one explain why a magazine that was due out at the end of January appears nearly a month later? The answer is that putting the magazine together is the responsibility of your Editor, and she was completely taken over by this Summer's events, which started here in Spring – on 23rd November to be exact. That day we saw the so-called Abbeyard Fire start, about 30 km east of our eyrie above the King Valley, and we reported it of course. Nothing seemed to be done about it for several days until it took hold and eventually it burned through more than 100,000 hectares, and was still burning around the edges two months later. I hasten to say that we were extremely fortunate, in that none of the fires reached our property, and nothing was burnt here. My heart goes out to those who lost their homes and fences and livestock and businesses. Our problems were trivial in comparison.

Nevertheless, living in fear and tension and smoke, and packed ready to flee at a few hours notice for two-and-a-half months does leave its scars, both mentally and physically. Physically, for me, in terms of what seems to have become chronic asthma from the constant heavy smoke. At least we could laugh when Melbourne complained of smoke pollution for a few days every now and then!

We started by packing all our "extensive historical records" (another's words) both professional and personal, and taking them in car loads and van loads to safe storage in Wangaratta, an hour's drive away. I had enough foresight to realise that I was never going to find anything again unless I numbered and labelled every box and uploaded numbers and descriptions to a backed up digital data base. The next thing was to decide what we must not lose and pack it so we could fling it into car or van and flee with it when the time came. What is it that one must not lose? Title deeds etc., some clothes, medications, external hard drives (back-ups), a few favourite kitchen tools, mobile phones & chargers, things like a tiny carved bear sent to me from Damascus by Dad during WW2, a notebook/laptop and all its bits and pieces, two dogs and their beds and food. The photos were all in store already! This was on top of all the slashing and mowing and trimming and raking and gutter cleaning that had to be done outside.

We finally had to flee on 4th January, taking two cars and a van, Carl, me, our daughter and the dogs to Benalla. We stayed there for four nights and returned home to the uneasy thought that it could happen again, and again, and next time we mightn't be so lucky. In 2006-7 we had a bushfire at Whitlands which started on December 1st and burned around and on our property for three months – sometimes only

150 metres from the house – but we never felt the fear of this summer. There was a bad drought then, and little feed, but the temperatures were 10°C less than this year and we had many teams of Furies here, protecting us and our neighbours at all times. But that was 14 years ago – it was a different age and a different climate! Literally! Black Saturday fires in 2009 didn't come close to us, but they were quantitatively worse than 2006-7 in temperature and fierceness and this summer's fires are worse again.

This spring and into summer we watched what was happening in other states, and then in East Gippsland (not far away) and it was terrifying. We knew that if the fires came to us there would be no Furies to care for us like last time. That's why we had to leave. I should have seen it coming, but like most of the population, I suppose I have had my head in the sand. The reason I should have seen it coming is I have been watching climate change happen around me for 74 years – but I didn't know that's what it was and I didn't know what caused it until recently.

I am an engineer and conservationist now, but back in 1946 I was a child and a would-be skier. To ski at Mt Hotham, it was usual to ride horses up the Bon Accord Spur to the Razorback and then walk the rest of the way to Hotham Heights, because the Great Alpine Road was closed with snow all winter. In 1950 Dad and I had no horses, so we walked from 5 miles above Harrierville, Dad cutting steps in the ice with the heel of his skis around Blowhard, while carrying my skis strapped to his pack. By the time I had grown up, the road was rarely closed below Hotham Heights and there were only a couple of months when you couldn't drive from Harrierville all the way to Omeo. 60 years later, the road over the mountains is very rarely closed for more than a few hours in winter, and the so-called snowline has retreated a couple of hundred metres up the mountains. How long before we see Mountain Ash trees infiltrating the Snow Gums?

Of course the retreat of the snows has been happening for a lot longer than my lifetime. Witness the grand tourist hotel (the Belvedere?) built in the 1870s to overlook the ice falls of the Rhone Glacier. It still did so in the 1920s, but when we passed in 1986, there was no ice to be seen. The glacier has retreated far up its valley and out of sight.

Where we live, the road to Mansfield was closed by snow most winters in the 1930s and 40s. We bought our place in 1993, partly because of the superb views, but also because, on a 40° day in Melbourne, it was in the mid twenties up here at nearly 900 metres elevation. We were assured by the locals that the temperature never exceeded the twenties, and it still snowed in winter. That was correct then, but snowfalls here are very rare now and we get multiple days above

* First published by Engineers Australia as an Editorial in *Engineering Heritage Australia* magazine, January 2020.

https://www.engineersaustralia.org.au/sites/default/files/EHA_Magazine_Vol3_No4_January_2020.pdf. Reprinted with the permission of the author and editor. Ms Doring is interested in any comments from readers. She can be contacted at doring.belgrano@bigpond.com.

30° every summer. I am sure the temperature rises are accelerating every year. At the present rate of change, Australia will become an uninhabitable desert before many years have passed.

Don't think this summer has been an aberration, and things will soon return to "normal". There is no longer any normal. And don't assume that it will be possible for the world to "adapt" to temperatures above 50°. What we must do – and do very quickly – is reduce carbon emissions to pre industrial revolution levels. Then the world will have a chance.

HISTORIC STRINGERS KNOB FIRE SPOTTING TOWER LOST *

By Mark Simons

A historic fire tower built after the Black Friday bushfires in 1939 that's now popular with four-wheel drivers has been lost in East Gippsland. Forest Assets Planning Officer Mark Simons tells the story of Stringers Knob.

Bushfires in East Gippsland have left a path of destruction across the landscape and communities. Some scars will heal in time, while others will not.

This week, Snowy District Fire Forest Management Victoria staff made the devastating discovery that the historic Stringers Knob fire spotting tower has been lost.

Following the devastation of the infamous Black Friday bushfires in 1939, the Forest Commission began investigating ways to improve early detection of wildfires.

The Stringers Knob tower was constructed in 1941 using a then experimental single-pole design.

As there were no trees of suitable size locally available, a single-pole was created by splicing together two logs – a Red Iron Bark and a Yellow Stringy Bark.

A spotter's cabin was perched atop the pole, 28m (100 ft) above the ground, providing 360° views.

The Forest Commission later accepted that steel was a better substitute to wood for the construction of future towers, but Stringers Knob fire spotting tower remained in use until the late 1960s.

The tower and surrounding land is listed on the Victorian Heritage Register for its historical and scientific significance, as well as its unusual design. It also formed part of an iconic four-wheel drive touring route along the Snowy River in far East Gippsland, and was a popular picnic spot for tourists.

Around 1.4 million hectares has been burnt so far across East Gippsland, and the full impacts on recreation sites and assets across our forests and parks will not be known for some time.

There will be a long road to recovery, which will include the need to evaluate and plan for the replacement of recreation assets across the landscape.



Stringers Knob Fire Spotting Tower, now destroyed. Photo credits: DELWP.

* First published by the Department of Environment, Land, Water and Planning, Victoria, on 23 January 2020 – <https://www2.delwp.vic.gov.au/ourpeopletheirstories/stories/historic-stringers-knob-fire-spotting-tower-lost>.

BURNING BRIDGES

By Peter Evans

During recent bushfires in East Gippsland, the historic Genoa River and Murrindal River timber truss bridges were destroyed, leaving the Hinnomunjie bridge (in north-eastern Victoria) as the only timber truss bridge remaining in the state (which should prompt a review of the Victorian Heritage Register – there are five other timber truss bridges extant over the Murray River but these, of course, are in NSW). Most of Victoria's timber truss bridges were built across Gippsland's temperamental rivers, in order to reduce the number of pylons gathering debris and liable to be washed away in floods. Good timber was sometimes also to hand.



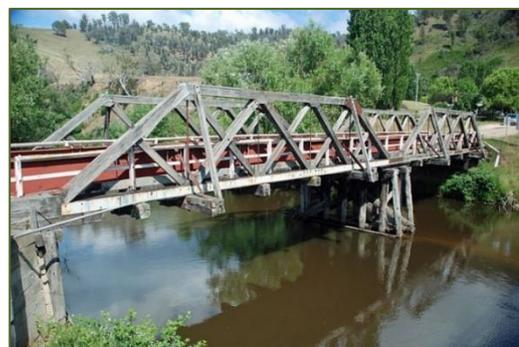
Genoa River truss bridge, now destroyed.
 Photo credit: Victorian Heritage Database

The VHR states: "The Genoa River Bridge is historically and architecturally significant at State level. It is one of only five timber truss bridges to survive in Victoria, and of these, the Genoa Bridge has the maximum number of truss spans. Let out to tender in 1925 and completed in 1927, it is the only surviving example of a multi-span timber-truss bridge built by the Country Roads Board. Many Country Roads Board bridges were built during the 1920s with 80 foot span trusses of a standard design based on the American Howe type. ... The Genoa Truss Bridge is [was] Victoria's only genuine 'Highway Bridge' of the type illustrated in Victorian road-and-bridge construction manuals early this century. It was designed and built as an important link on the newly named Princes Highway, when that route provided the only trafficable motor connection between Melbourne and Sydney. ... The contractor who undertook the bridge's construction was J T Noble Anderson who pioneered concrete bridge construction in Victoria in partnership with John Monash ... Set high on concrete piers, the three timber trusses present an imposing view in an attractive river setting. Since its closure to road traffic the bridge has played an important social role as a convenient walkway linking township amenities." The bridge was restored in 1997." The bridge was restored in 1997.

Murrindal River truss bridge, now destroyed.
 Photo credit: Victorian Heritage Database



The Murrindal River Truss Bridge on Basin Road was built in 1927 and consists of a single timber Howe truss span and five stringer approach spans, supported on timber trestles fixed to concrete piers. The Developmental Roads Act, designed to provide improved access from remote areas to main roads and railways, was pushed through by the incumbent Country Party government in Victoria in 1918 and was administered by the Country Roads Board (CRB). The Basin Road was surveyed in 1900 and was completed by c1909. The road was declared a Developmental Road in 1918 and, in 1920-21, the CRB provided funds for substantial works. In 1923 the Acting Premier and the Chairman of the CRB visited Basin Road as part of the East Gippsland section of a "bad roads tour". In 1925-26 further road works were funded by a special grant under the Unemployment Act. In 1926 Developmental Road funding was approved for a new bridge over the Murrindal River, which was built under direct CRB supervision. The CRB described the bridge in its Annual Report as 'virtually a viaduct'. The bridge is now closed to vehicular traffic and has been made suitable for pedestrian use, with a new concrete road bridge built upstream.



The Hinnomunjie truss bridge – the only timber truss bridge remaining in Victoria.
 Photo credit: Victorian Heritage Database.

References: E-mail from David Moloney dated 16 January 2020; Victorian Heritage Register; Chambers, D. (2006). *Wooden Wonders: Victoria's Timber Bridges*. Hyland House Publishing Pty Ltd, Flemington, Victoria, pp166-187.

TIMBER AND BRIDGES

By Peter Evans

Hawthorn bridge over the Yarra, 1860

The oldest bridge over the Yarra still in use is the Hawthorn Bridge connecting Richmond with Hawthorn. The bridge was built in 1857-61 and was widened in 1890 to carry horse tramways. By 1930 the bridge had become unsafe and it was reconstructed and widened. Timber samples were obtained from the original piles driven in 1857 (and taken from 8 to 14 ft below the surface). The piles, driven to bedrock, supported the massive masonry piers of the bridge. The piles were found to be rotted at the heart, although an outer shell four inches in thickness was still sound.

Engineer Joshua Thomas Noble Anderson examined the timbers on behalf of the Forests Commission of Victoria. His report included the statement: *I would remind you of Tredgold's Carpentry recital, that Hadrian's [sic – Emperor Trajan's] bridge over the Danube, when replaced in the Seventeenth Century, was found to have the elm wood piles below the ground still sound, though 1400 years old. I myself have taken sound timber from 20 ft below the surface in the Werrabee River near Bacchus Marsh, which had been exposed by the erosion of the river bank. Further testing identified the timber from the Hawthorn bridge as Messmate (E. obliqua).*



The Hawthorn Bridge. Unknown photographer, State Library of Victoria image H2001.308/3398.



Testing the timbers, Hawthorn Bridge, 1930. Unknown photographer, State Library of Victoria image H2001.308/3398

The engineer in charge of the reconstruction, Wilfred Dinsey Chapman, was heartened by the condition of the timber: The evidence afforded by these piles is regarded as most important and re-assuring regarding

the use of timber piles of the better class of Australian Hardwoods for foundation work when completely covered and permanently moist. It seems reasonable to expect these piles to last as long again as they have already been in position and, at all events, considerably over the 100 years usually realised for oak and elm in the Thames bridges.

References: PROV, VPRS 11563/P0 unit 75 item 31/525. See also Tredgold, Thomas (1875). *Elementary Principles of Carpentry*, E. & F. N. Spon, London & New York, p357; and Chapman, Wilfred Dinsey (1931). 'Reconstruction of Hawthorn Bridge'. In *Transactions of the Institution [of Engineers]*, Volume XII, pp81-89, passim.

Spencer Street, Melbourne, 1928

In 1928 a large stump was removed during work for the south abutment of the new Spencer Street Bridge spanning the Yarra in Melbourne. The stump was uncovered at a depth of 63 ft. It had been missed by inches in preliminary boring, and held up the work for three weeks, costing £157 to cut up and haul out using block and tackle. The stump was believed to be that of a River Red Gum (*E. camaldulensis*) and thought at the time to have been buried about 200,000 years ago. More modern dating puts it as buried 8000 years ago (when sea levels were much lower than at present) and puts age of the tree at death more than 400 years. At the time it was unearthed, the remains were classed as "in good condition". A portion of the stump has been preserved at the Old Treasury Building.



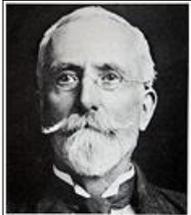
The photographs above were taken by the engineer in charge of the work, Wilfred Dinsey Chapman (1891-1955). Source: State Library of Victoria, images H2001.308/3171 and H2001.308/3179.

References: *The Argus* (Melbourne), Saturday 28 July 1928, p23; *The Advocate* (Burnie), Wednesday 19 June 1929, p5.

2020 VISION – HUTCHINS AND ELLIS

By Mike Roche

In 2020, it is salutary to recall that 1920 was a year of some significance in the forest history of New Zealand. Nineteen-twenty marks the end of nearly two generations of false starts and advocacy, reaching back to Campbell Walker's short-lived appointment as Conservator of Forests in 1874, through to the Royal Commission of Forestry in 1913.



Sir David Hutchins

In the aftermath of the Royal Commission came the invitation to David Hutchins, a senior figure in Imperial forestry circles, to write a report on New Zealand forests. Hutchins was then in Australia preparing a similar report. He arrived in New Zealand in 1915 and eventually completed

the first part of his report and another document on Waipoua Kauri forest. Hutchins had been asked to report on exotic plantation forest in New Zealand but quickly realised that the broader scope of state forestry and sustained yield management was foreign to the New Zealand public and officials. Accordingly, he made considerable efforts to promote the case for forestry, particularly from a financial point of view. One outcome was his reports were considerably delayed and the second part remained incomplete and unpublished. His efforts did, however, help advance the cause of forestry – a Forests Department administratively independent of the Lands Department was established in 1919.

Hutchins died unexpectedly in late 1920 having shortly before become the fourth forester in the British Empire to be knighted. The funeral was attended by Sir Francis Bell and Sir James Wilson. Bell at the time was Acting Prime Minister as well as being the Commissioner (i.e. Minister) of State Forests and was the politician who had taken up the cause of forestry in the dominion. Wilson, a leading farmer politician was president of the New Zealand Forestry League, an advocacy group that Hutchins helped establish. Hutchins was buried in the Karori cemetery in Wellington. A marble headstone featuring a stylised Kauri (*Agathis australis*) paid for by public subscription was erected in 1929. Kauri was a species that had attracted Hutchins' attention during his time in New Zealand for what he regarded both its mismanagement and its revenue generating potential.

The funeral was attended by among others Leon McIntosh Ellis, the Director of Forestry appointed to the position in 1920. Ellis, a Toronto forestry graduate (1911), was initially employed by Canadian Pacific Railways before war service in France with the Canadian Forestry Company (from 1916). Ellis applied for the New Zealand position while employed as an Assistant Forester with the Board of Agriculture in Scotland.



Leon McIntosh Ellis

Ellis' application provided a good indication of his approach; "In lieu of Testimonials, which until now have never been needed", he offered supporting statements garnered from previous correspondence with his Canadian Pacific Railways and Canadian Forestry Company superiors. Ellis proclaimed, "I stand or fall by my record, which has been one of 'doing' rather than 'going to do'". He also listed eight individuals who could provide confidential references to his "character, ability and worth":

- Clyde Leavitt (Chief Forest Officer, Dominion Commission of Conservation, Ontario)
- B.M. Winegar (Canadian Pacific Railways)
- Edmund John Zavitz (Provincial Forester, Ontario)
- G. H. Prince (Provincial Forester, New Brunswick)
- Prof H.D. Ross (formerly University of Toronto)
- J. D. Gilmore (manager Timber Department, Anglo-Newfoundland Development Co.)
- J.F. Sweeting (Canadian Pacific Railways) and
- Major Yvo Richard Vesey, 5th Viscount de Vesci.



The grave of Sir David Hutchins, Karori Cemetery, Wellington. Photo: Mike Roche

The inscription reads:

In memory of Sir David E. Hutchins, K.B., F.R.G.S., I.F.S., of Cobham, Kent, Eng., who departed this life on 11th November 1920, aged 70 years, whilst preparing a report on New Zealand forests.

An acknowledgement of the important services rendered by him to Empire forestry by members of the New Zealand & Australian Forestry Leagues, relatives and friends who mourn his death.

His work lives on.

Among this group were some, for example Zavitz, who went on to have distinguished careers in Canadian forestry. Ross was presumably included in lieu of Fernow, who was the Dean of Forestry at Toronto, because of anti-German sentiment in the immediate aftermath of WWI.

A man of great energy and considerable vision, Ellis headed the first Forest Service in New Zealand to be staffed by professionally qualified foresters. He prepared a report and shaped new forestry legislation in 1921, but perhaps his greatest contribution was the initiation of an accelerated ten-year 300,000 acres exotic afforestation planting boom. His association with plantation forestry in New Zealand has however, tended to overshadow his wider interest in indigenous production and protection forestry. In one sense Ellis was also a beneficiary of Hutchins' advocacy. Within official circles the view was formed, on the basis of some of Hutchins' more extravagant claims, that New Zealand would be better served by employing a forester trained and experienced in North American conditions than one with only Imperial Indian and or African experience (Lane Poole's early years in Australia stand in counter point to Ellis's early career in New Zealand.)

Australia also featured prominently in both men's careers. A planter of eucalypt species in South Africa, Hutchins late in his career was keen to see these species in natural forests in Australia. His expertise and proximity to New Zealand led to him being invited to New Zealand. Here his career, which began with training at Nancy and spanned across India and Africa, ended. Ellis on the other hand, still early in his career, was to depart from New Zealand in 1928 for Sydney where he worked as a forestry consultant and later for APM in Victoria. He left frustrated with his salary for the promise of more lucrative consultancy work in the private sector, aspirations that were dealt a severe blow by the great depression.

Bibliography

- Applications for Director of Forests F1 W 1921, Archives New Zealand, Wellington.
- Roche, M. 2009. 'Latter day 'imperial careering': L.M. Ellis - a Canadian forester in Australia and New Zealand, 1920-1941' *ENNZ: Environment and Nature in New Zealand*, 4(1) 58-77.
- Roche, M. 2010. 'David Hutchins in Australia 1914-1915: the penultimate chapter in the career of an Imperial forester', *Historical Records of Australian Science*, 21, 165-180.
- Roche, M. 2010. 'Colonial Forestry at its Limits: The Latter day career of Sir David Hutchins in New Zealand 1915-1920', *Environment and History* 16, 431-454.
- Roche, M. 2013. 'The Royal Commission on Forestry 1913 viewed from 2013'. *NZ Journal of Forestry* 58, 7-11.

Ellis and Hutchins: Select Bibliography

- Ellis, L.M. 1920. Forestry. *New Zealand Forestry League Annual Report and Proceedings*. New Zealand Forestry League, Wellington 15-19.
- Ellis, L.M. 1920. Report on forest conditions in New Zealand and the proposals for a New Zealand forest policy. *Appendices to the Journals of the House of Representatives*, C3A, pp.51
- Ellis, L.M. 1921. Forestry in New Zealand. *NZ Journal of Agriculture*. Feb 87-89.

- Ellis, L.M. 1922. Forestry Facts. *The Forest Magazine (New Zealand)* 1(1): 6-7.
- Ellis, L.M. 1923. *Forest and Forestry in New Zealand. Prepared for the Imperial Forestry Conference, Ottawa*, Government Printer, Wellington.
- Ellis, L.M. 1923. The Empire Forestry Conference, *New Zealand Life and Forest Magazine* 3, 6.
- Ellis L.M. 1924. State Forestry in New Zealand. *New Zealand Life and Forest Magazine* 3, 9-10.
- Ellis, L.M. 1924. Forestry in New Zealand. *The Gum Tree* 8(32), 19.
- Ellis, L.M. 1925. 'Afforestation.' *Auckland Chamber of Commerce Journal* 1, 8-9.
- Ellis, L.M. 1925. New Zealand – The Timber farm of Australasia, *New Zealand Life* 4, 7.
- Ellis, L.M. 1935. Afforestation in the Antipodes, *Journal of Forestry* 33, 523-526.
- Hutchins, D. 1909. *Report on Cyprus Forests*. London: Waterlow & Sons.
- Hutchins, D. 1909. *Report on the Forests of British East Africa*, London: His Majesty's Stationery Office.
- Hutchins, D. 1916. *A discussion of Australian forestry with special references to forestry in Western Australia*. Perth: Government Printer.
- Hutchins, D. 1916. 'Scientific Forestry for New Zealand', *The New Zealand Journal of Agriculture* 13, 295-317; 375-396.
- Hutchins, D. 1917. *Scientific national forestry for New Zealand: inaugural address delivered at the initial meeting of the League in the Chamber of Commerce, Wellington, on July 11th, 1916*, Wellington: Watkins, Tyler & Tolan Printers.
- Hutchins, D. 1918. 'The Forests of New Zealand'. *Transactions Royal Scottish Arboricultural Society* 32, 90-94.
- Hutchins, D. 1918. 'The Waipoua Kauri forest, Its Demarcation and future Management'. *New Zealand Journal of Agriculture* 16, 136-141.
- Hutchins, D. 1918. *Waipoua Kauri Forest, its Demarcation and Management*, Wellington: Department of Lands and Survey.
- Hutchins, D. 1919. Explanatory Note Regarding Report on Forestry in New Zealand. Wellington: Wellington Publishing Company.
- Hutchins, D. 1919. 'Forestry New Zealand'. *Quarterly Journal of Forestry* 13, 139-140.
- Hutchins, D. 1919. *New Zealand forestry. Part 1, Kauri forests and forests of the north and forest management*. Wellington: Department of Forestry.
- Hutchins, D. 1919. 'The Forests of New Zealand' *Transactions Royal Scottish Arboricultural Society* 33, 19-123.
- Hutchins, D. 1920. 'New Zealand Forestry'. *Quarterly Journal of Forestry* 14, 75-76.
- Hutchins, D. 1920. 'Rate of Growth of Trees in Relation to Forestry. A Criticism of Mr Maxwell's paper', *New Zealand Journal of Science and Technology* 3, 1-7.
- Hutchins, D. 1923. 'Notes' In *Forest and Forestry in New Zealand prepared for the Imperial Forestry Conference, Ottawa, 1923* Rhodes, R. H. and Ellis L. M. Wellington: Government Printer, p39.

A JOB WITH THE FORESTRY

by Len Talbot (contributed by Roger Underwood)

In 1947 I left the railways and took a job with the Forests Department as a chainman, and spent most of that year in an assessment gang putting in permanent assessment lines near Dwellingup, and remeasuring increment plots in treated jarrah forest at Mundaring. Phil Barrett was the DFO and Mundaring and was in charge of this operation. He used to drive around in a little red Bedford utility which were the Department's work-horses before being replaced by ex-Army Willy's Jeeps.

Phil called his Bedford "Discretion". When I asked him why, he told me that his previous Bedford ute, which would go just about anywhere, had been named "Valour". This new one, he claimed, was even better and, as the saying goes "Discretion is the better part of Valour".

For several months we camped at a wood-cutter's camp about six miles up in the hills behind North Dandalup. Here a gang of Italians was carting firewood from dumps in the bush down to the railway siding and loading it onto trucks. The Italians, several of whom had served in the Italian Army in Abyssinia, had been interned during the war. They were put to work firewood cutting and then kept on after the war. The firewood was for the pumping stations along the Goldfields water pipeline. It had been cut by German and Italian prisoners-of-war from the Marrinup P.O.W. camp and there was still hundreds of tons of it stacked all through the bush in 1947.

The O.I.C. of the camp was Assistant Forester Ted Crockenberg. He was also the local S.P. bookmaker. Our transport was an ex-World War I Army bicycle each. We had to ride a good many miles each day on these big heavy bikes, shod with thorn-proof tyres. In addition to our lunch and water bags, we carried between us a spade, two axes, a slasher, five chain band, compass and field bag with field books, and maps. Occasionally we were able to fit our travel in with the work of the forestry gang, in which case we travelled with our bikes on the back of the truck. There were many bitterly cold, frosty mornings when the truck was pulled up every few miles, and we would light up a grass tree and stand around the blaze for a few minutes to thaw out.

On Saturday afternoons (we worked Saturday mornings as part of the 44 hour week then) everyone piled onto the back of the truck and went to North Dandalup for the afternoon to the pub, or to try to back winners with Ted Crockenberg, or play football. All the way down, the Italians would sing beautifully. On the way home in the evening they sang even better, and with much more gusto.

Every so often an old blacksmith named Don Rule used to come over from Whittakers Mill to do some smithying for the Department. He was 74 years old and a real old "character" who had spent his entire life

in the bush. Whenever I got the opportunity I used to watch him at his work and ply him with questions about his trade and about the old days and sometimes in the evening some of us would go over to his camp for a yarn.

Old Don (I always called him Mr Rule in deference to his age, a custom long since dead) delighted in telling us what "wild young buggers" he and his mates had been in the early days. We found the tales of their "wildness" rather amusing because old Don was a gentle old bloke. This yarn is typical of his "wildness".

He told us of the escape of the Irish Fenian convicts from Rockingham aboard the US whaler *Catalpa* and went on to say: "There was a song about it that us young fellas usa'ta sing. It was banned and you wasn't allowed to sing it. You could get sent to gaol if you did. But sometimes when we were out in the bush and had had a few drinks, us young fellas used to sing it. Oh yes, we was wild young buggers in them days alright."

The late Len Talbot was an Assistant Forester with the WA Forests Department, starting his career in forestry as a chainman. This story is an excerpt from his memoir "A life in the bush" published in *Leaves from the Forest* by Roger Underwood (editor), Lamb Print, Perth, WA, 1987.

AFHS MEMBER RECOGNISED IN AUSTRALIA DAY HONOURS 2020

By Fintán Ó Laighin

Congratulations to AFHS member Graham McKenzie-Smith for being made a Member of the Order of Australia (AM) in the 2020 Australia Day Honours.

The citation notes his "significant service to military history preservation, and to forestry". It includes a long list of organisations in which he has been involved – both professionally and personally – and a list of his publications. The AFHS is mentioned in both lists.

Also mentioned is his Gold Commendation from the Australian Army in 2018 "for his 35 years of research on The Unit Guide".

The full citation can be read on the Governor-General's website at

https://www.gg.gov.au/sites/default/files/2020-01/ad2020_media_notes_-_am_m-z.pdf.



RESTORING FORESTS IN TIMES OF CONTAGION

We are seeking papers on the history and policy of tree planting to restore Australian and New Zealand forests and landscapes. They will be published online concurrently as a collection in October 2020 to mark John Evelyn's birth in 1620.

Papers should reflect on the ways Australia and New Zealand have encouraged tree planting since the 1870s and more recently for revegetation, development offsets and carbon capture to combat global warming.

Co-ordinators: Cris Brack, John Dargavel, Peter Kanowski, Libby Robin, Mike Roche and Ben Wilkie

Coincidences

The coincidences of Evelyn's time and ours extend beyond the need for trees. Just as the Royal Society published John Evelyn's *Sylva or a Discourse on Forest Trees* in 1664, England was hit by the Plague. Just as we were planning a conference on forest restoration, we have been hit by COVID19, but we will persist by publishing short papers on the Australian and New Zealand Environmental History site, <https://www.environmentalhistory-au-nz.org>.

Just as Evelyn was appalled by waste and deforestation, so are we in many of our landscapes. Evelyn wrote *Sylva* as a textbook on restoring the English forests. Gabriel Hemery and Sarah Simblet re-wrote it in 2014 for twenty-first century Britain as *The New Sylva*. We need to restore our Southern Hemisphere forests and landscapes in ways that consider our own history, environment, changing climate and ravaging bushfires. This collection of papers will examine our endeavours so far.

Submission

Expression of Interest. Please let us know of your interest so that we can keep you well informed. Send email to john.dargavel@anu.edu.au.

Abstract by 30 June. Please send title and 50-100 words abstract to john.dargavel@anu.edu.au.

Paper by 30 September. 1000-2500 words with any images, illustrations, maps etc. that will be posted along with the main text.

Publication by 31 October.

Further development. Opportunities for a collection or individual papers can be discussed.

Further information: John Dargavel
 E: john.dargavel@anu.edu.au.

Note: The December 2014 issue of our newsletter included a report of a seminar convened at the ANU in Canberra to mark the 350th anniversary of the publication of John Evelyn's *Sylva*. The evening concluded with John Dargavel donating his copy of the third edition of *Sylva* (published in 1679) to the ANU's library. The December 2014 edition also includes John's review of *The New Sylva*. The newsletter is available on the AFHS website at <https://www.foresthistory.org.au/newsletter/afhsnewsletter64.pdf>.



The two Johns: Evelyn (L) and Dargavel (R).

DIGITISATION OF ANU THESES

By John Dargavel

The ANU has digitised over 13,600 of the theses awarded since 1953. They are freely available in the Open Access Thesis Collection at <https://openresearch-repository.anu.edu.au/handle/1885/3>. Over 400 relate to forests in Australia and other countries. Many contain information about forest history that is not always readily apparent from the title. Here are a few to indicate the potential richness of the resource now readily available online.

Brian John Furrer, 1971, Management and silviculture in the spotted gum forests on the south coast of New South Wales.

Robert William Boden, 1971, Changing land use in the Canberra region.

Graham R. McKenzie Smith, 1975, The private sector of the afforestation industry in Australia: with particular reference to afforestation investment companies.

Richard Bruce McCarthy, 1977, A review of farm forestry: problems and possibilities in Australia.

John Brunton Dargavel, 1982, The development of the Tasmanian wood industries: a radical analysis.

Kevin J. Frawley, 1983, Forest and land management in north-east Queensland: 1859-1960.

Digby Hamilton Race, 2000, The social and economic implications of farm forestry development for regional Australia.

Judith Clark, 2002, The introduction of agriculture for wood production in Australia: public policy lessons from the softwood planting program.

Suzanne Adele Feary, 2007, Chainsaw dreaming: Indigenous Australians and the forest sector.

Michael Francis Ryan, 2009, Does early colonial art provide an accurate guide to the nature and structure of the pre-European forests and woodlands of South-Eastern Australia? : a study focusing on Victoria and Tasmania.

Edwina AM Loxton, 2013, Assessing and managing social impacts resulting from forest policy changes.

Philip Vernon Townsend, 2014, An integrated analytical economic framework to inform future Australian plantation policy.

LOGGING BY LIDGERWOOD IN VICTORIAN FORESTS

By Peter Evans

The pinnacle of steam logging technology in Victoria occurred in the upper Thomson Valley in Gippsland with the introduction of large and powerful logging engines from the USA. Perhaps the most intensive use of the skyline and high-lead technology took place from 1933 to 1944 under the direction of Jack Ezard. In light of the recent devastating fire season, it is of interest to note that practically all of this logging took place as part of bushfire salvage operations.

James Francis "Frank" Ezard (1876-1960) entered the sawmilling business in 1908 when he took over the management of Henry Brothers' sawmill at Warburton. Only a year later, Ezard purchased the mill off the Henrys and moved it further out onto Mississippi Creek. In 1911 he sold out to the fledgling Warburton Timber & Tramway Company. A condition of the sale was that he not start a new sawmilling business within 25 miles of Warburton for ten years, so he purchased land at Glenmaggie and took up farming. When the Warburton Timber & Tramway Company folded in 1918, Frank Ezard seized the opportunity to return to Warburton, where he built a new sawmill on the Starvation Creek – McMahons Creek divide, and placed his eldest son John Arthur "Jack" Ezard (born 1904) in charge of the mill. Operations commenced in 1922, with two Harman double-drum winches in use for logging. (For details of the Harman winch see *AFHS newsletter 77*.)

The mill was in an excellent patch of timber, and Jack Ezard was a progressive man. He was an early adopter of technology, even down to owning his own aircraft, and pioneered the use of Lidgerwood logging engines in Victoria when, in 1926, he purchased a Lidgerwood machine second-hand from Tasmania, presumably one formerly owned by the Huon Timber Company. In 1928, Jack Ezard had a geared steam locomotive built by Day's Engineering of South Melbourne, further mechanising the operation. However, by the early 1930s the Starvation Creek area was nearly cut-out, and it was decided to move the operation east to the Thomson Valley.



O'Shea & Bennet's burnt mill in the Thomson Valley. Photo by Mervyn Bill, Forests Commission of Victoria.

Frank Ezard had had his eye on the Thomson Valley Timber for some time, initially thinking (like his peers) that it could be brought out over a long extension to the Starvation Creek tramway which served his current mill. However, it was decided that the best method of gaining entry to the new district was to purchase an existing mill, so an option was taken on O'Shea & Bennett's sawmilling operation in the Thomson Valley. Before the option could be exercised, the mill was destroyed by wildfire on 5 February 1932, with the loss of eight lives, including one of the owners. After the fire, the sale was completed, and Jack Ezard set about rebuilding the mill and the tramway system to tap the burnt timber, and he installed a second sawmill just south of the Talbot firebreak. Once again, technical innovation was the order of the day with the rip bench being powered using electricity generated at the site. When the Warburton mill was cut-out in 1934, the Lidgerwood logging engine, the Harman winches and the geared locomotive were transferred to the Thomson Valley. This required that the outlet tramway to Erica railway station be re-aligned and re-graded to suit locomotive haulage, forming the nucleus of the 3-ft gauge Thomson Valley Tramway.

By September 1938, Jack Ezard had almost completed felling the timber killed in the fires of 1932, and was looking forward to moving north into the green timber beyond South Cascade Creek. Both mills were threatened by fire in October 1938, but disaster was kept at bay until 13 January 1939 when an inferno swept the area. Jack Ezard had constructed good fire-refuge dugouts at his mills and, with this as a secure fall-back position, the men were able to save the winches and both mills, but only at a cost of £1000 in wages. Any hope of green timber was now lost, and Ezard would have to begin a salvage effort all over again. The No.2 mill was destroyed by an accidental fire in 1941 and all milling operations were then concentrated at the No.1 mill, with logging largely confined to South Cascade Creek and Rocky Knob. Cutting was completed to the Forests Commission's satisfaction by 1951 and the remaining sawmill and its section of the Thomson Valley Tramway were dismantled and operations shifted further east to Swifts Creek.

The machines

Lidgerwood was successful in penetrating the Australian market mainly in relation to its well-known cableways for concrete dam construction (which perform a very similar function to a logging skyline) and, to a lesser extent, for mining winders, mainly in Western Australia. Only two Lidgerwood logging plants are known to have operated in Victoria, both owned by the Ezards, one almost certainly ex Huon Timber Company and one almost certainly ex Mount Bold dam. Without clear photographs it is difficult to identify either Lidgerwood logging engine with precision. The earliest machine (ex Huon Timber Company, Tasmania) had a 48-inch diameter boiler which would make it most likely a machine with a

9-inch bore and 10-inch stroke. The second, ex Mount Bold, was a monster machine – very likely a standard 10-inch bore and 12-inch stroke triple-drum machine with a huge custom-made fourth drum added to the front.



Source: *Film Timber*, Shell Company of Australia Ltd.

Logging by Lidgerwood

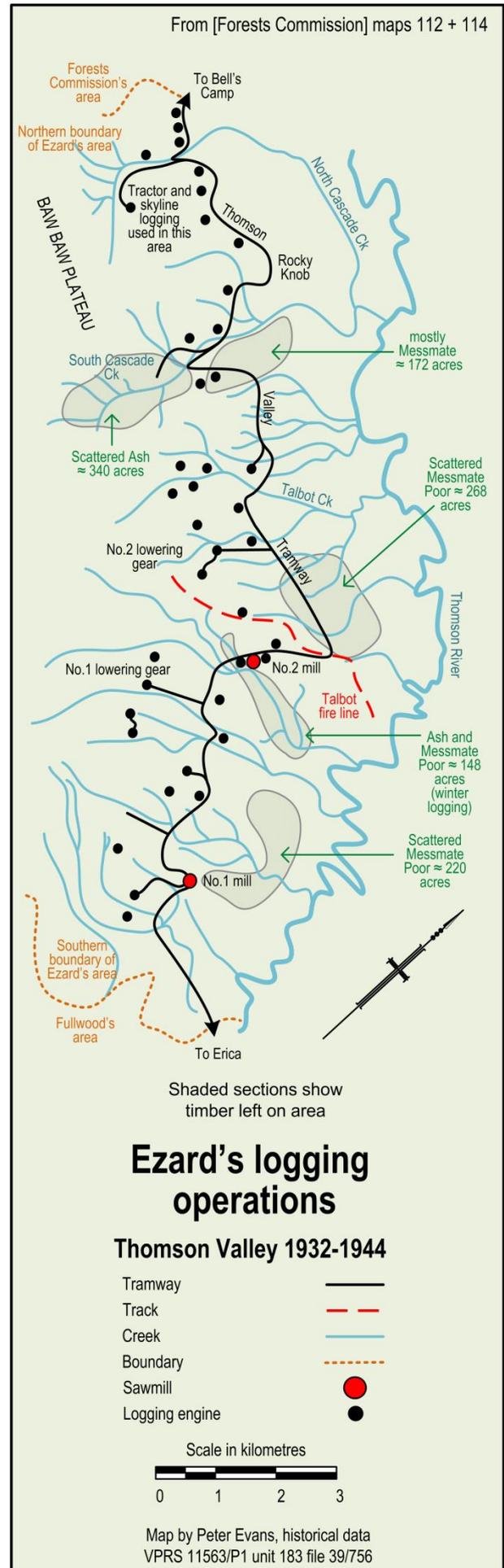
The following information is taken almost verbatim (except for the correction of minor spelling mistakes and some clarification shown in square brackets) from Jack Ezard's 1944 description of how this logging was carried out. Ezard's map of his logging engine sites which accompanied his report (PROV, VPRS 11563/P) unit 183, item 39/756) has been re-drawn so that readers can gain some insight into the magnitude of the task.



North Cascade bridge, Thomson Valley Tramway.
 Photo: Peter Evans.



The only substantial remains of a skyline in Victoria today:
 Ingrams Skyscraper, Mount Erica. Photo: Peter Evans.



1933-34 & 1934-35

No.1 mill worked twenty months in standing dry [timber] cutting approximately 3½ million [super-feet], logging with Harman on sledge making three moves, covering a distance of 1¼ miles.

1934-35

Put in No.1 lowering gear, 3,300 ft., rising a height of 1,100 ft. Built lowering engine. Built up Lidgerwood Logger from Warburton; ... in conjunction with Harman moved [both] up to top of lower[ing gear], salvaged felled timber for 4,000 ft. In northerly direction, and for 2,200 [ft.] in southerly direction; later to be supplemented with 26 chains of tram on the skyline to reach an isolated patch of 90 acres, making a total distance in a southerly direction of 6,000 ft.

During this year we reconditioned the burnt Steel Company [of Australia] winch and constructed No.2 mill at what was then the end of [the] tramline and started cutting timber felled for the mill site. The distance moved during this year by the No.1 [mill] loggers totalled approximately 3 miles over extremely rough country.

1935-36

Moved the No.1 [mill] machines again down to the lower levels and changed our skyline rig to a skidder system. Put new vertical boiler on Harman. Logged here for four months, then moved Lidgerwood around by tramline to end of a new spur line constructed in a westerly direction from No.1 mill (¾ mile), and started logging. Moved Harman to Fullwood's boundary and erected skyline and logged [the] most southerly end of our area.

Total distance moved by machines ... during 1935-36 was 5½ miles. We capsized both machines in a minor way during these moves.

For the No.2 mill during this period we put the Warburton Harman on [a] sled and moved up into salvaged timber and high-lead a patch of small poor quality timber to the end of Steel Co. machine's rope and roaded [it] into the mill yard. Distance of first move was 2,500 ft.

During this time we constructed No.2 [mill] lowering gear 3,300 ft. With a rise of approximately 900 ft. Built lowering gear and moved Harman to top of lowering gear a distance of ¾ mile, and logged a fair patch of dry timber and a small patch of rotten green, using high-lead at first then changing over to a skyline to reach the distance.

We also moved the Steel [Co.] machine out to the end of the tramline and logged an isolated patch of dry [timber], lasting two months. We then moved this machine back along the line to a position over-looking another patch of dry timber on the lower levels.

The total moving distance for the four machines during this period was 8¾ miles.

1936-37

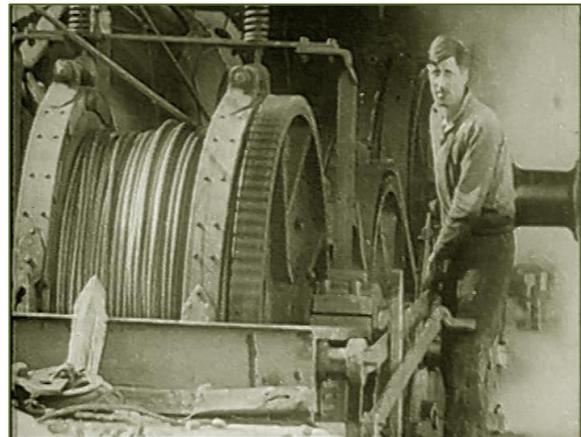
Moved Harman on No.1 site in a northerly direction, a distance of 3,000 ft. Up the mount, at same time moving skyline to connect. Logged dry and green. Green very rotten on an average.

Built new ropeway machine for No.1 bush. This machine drives an endless rope system with one engine and operates the skidding line with the other.

At No.2 [mill] we installed a new Lidgerwood purchased in S[outh] A[ustralia]. This machine was put on its sled at the top of No.2 lowering gear and moved in a northerly direction for a distance of 1½ miles, crossing rough and broken country. We then followed up with the Harman for a distance of 1 mile, throwing the skyline back from the Lidgerwood to connect up this side of Talbot Creek.

During this time we erected a ropeway up from the main tram grade to spur at [the] Lidgerwood. The distance was 4,000 ft. Made in six spans.

We adopted the ropeway system in an attempt to cut costs on lowering gears and to put our logging engines in strategic positions not attainable with lowering gears. Installed boiler and two small engines at bottom of ropeway to hoist and load. Put special lowering drum, built in Hobart, on front of Lidgerwood, making four drums on this machine, and put in an extra boiler.



Ezard's Lidgerwood.

Source: Film Timber, Shell Company of Australia Ltd.

Moved No.1 bush Harman further up the Mount a distance of ½ mile and installed the longest single span skyline we know of. This rope is 23/8" dia. And covers a span of 3,400 [ft]. Logged out the last of the dry and started on this green. This green has let us down badly, turning out very rotten, necessitating the shortening down of the mill crew.

At No.2 mill we installed a bigger engine and generator and enlarged the mill plant generally, expecting an increased output. Moved the No.2 bush Harman down the side of the Mount in an easterly direction. At the same time moved the Lidgerwood down to a lower level, shortening the ropeway to 2,400 ft. We had placed ourselves in a strong position for a good run home in the rest of the dry, but the borers had increased their activities and made the position hopeless. We then moved our Harman across the gorge in a northerly direction, a distance of 4,500 ft., and connected up from the Lidgerwood in the usual manner with [a] skyline. We are now giving the final patch of dry a try and are hoping for the best.

The total number of moves made was 29, not counting lowering or ropeway machines or minor moves around spurs. The area covered as near as we can estimate is 2,800 acres. The whole of this area has been within reach of the ropes at some time or the other.

At the present stage we have 5 loggers, an endless rope engine and sundry loading engines, necessitating the use of approximately 18 miles of rope, most of which has a very short life in granite country.

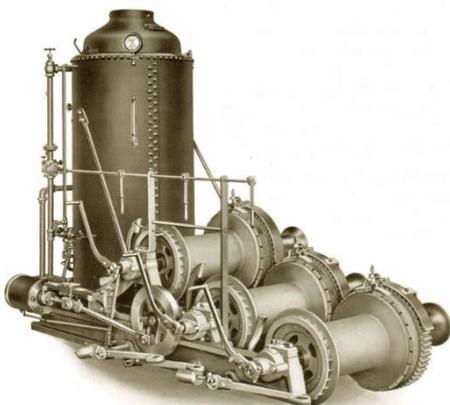
The maintenance of the gear and construction of most of it has employed a workshop crew of five men.

Conclusion

We do not know what happened to these engines; but given that Jack Ezard had to buy a Washington logging engine at Swifts Creek, the two Lidgerwoods were probably scrapped at Erica. What is amazing is the amount of effort that went into shifting these logging engines around, the amount of rigging installed (and replaced when worn), and the number of miles of tramway built, all just to get logs to Ezard's two sawmills in the 1930s and early 1940s. This period represented a major change in technology: steam winches like the Australian Harman, and the large American logging engines that represented the peak of that technology, were on the decline, and crawler tractors were starting to make inroads into steam power. What had started with Dolbeer's pioneering steam "donkey" in the USA in 1881 had moved to Australia by 1887, with the first large American logging engine arriving in the early years of the twentieth century. By 1950, the steam winch had all but had its day. Were it not for Ezard's Washington near Swifts Creek in the early 1960s, steam winches would have already been but a memory. However, for half a century they held sway as the technology of choice in logging Victoria's forests.

Acknowledgements

Many thanks to Mike McCarthy for drawing my attention to the file on Ezard's operations at Erica. (Ezard's operations will be one of the subjects in a major new book by Mike on the Erica district, to be published by the Light Railway Research Society of Australia Inc.) Thanks also to Carl Hopkins for extracting the images from the film Timber; to John Taubeneck and John Cummings for assistance with the identification of Ezard's Lidgerwoods, and to Darryl Huffman for permission to use the images from his 1913 Lidgerwood catalogue (below).

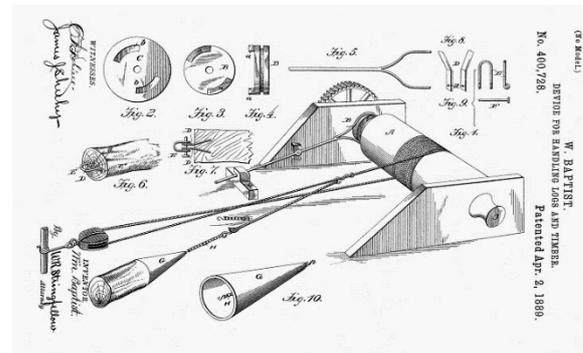


Above: Standard three-drum Lidgerwood logging engine from the Company's 1913 Catalogue. Courtesy Daryl Huffman.

THE BAPTIST CONE

By Peter Evans

In Australia, a common aid to snigging logs was the log shoe, a heavy sheet of metal shaped like a toboggan with an up-curved front which was fitted under the front of a log to ease its passage. An American alternative was the "Baptist Cone", of which at least one was tried in Victoria. The idea was brought back from North America by the manager of the Rubicon Lumber & Tramway Company, Robert Skinner. The cone was a failure in Australian conditions because the logs were simply too large, and it was abandoned in the bush. It was rediscovered many years ago by the late Ernie LeBrun whilst working on patrol duties for the State Electricity Commission. Ernie arranged to have the cone removed from the bush and installed at the Alexandra Timber Tramway. It is probably worthy of more notice than it currently receives, as it is almost certainly the only logging implement of its type preserved in Australia.



This form of cone was patented in April 1889 by William Baptist of New Orleans, and illustrated in use in a Lidgerwood logging engine catalogue of 1905. Baptist's description of the device in the patent application is as follows: "G indicates a hollow cone, which is provided at its reduced end with an aperture for the passage of a chain, as shown. The chain H which passes through the cone, is provided at opposite ends with a hook, one end of which is designed to engage the clevis secured to the end of the log and the opposite one for attachment to the drawing rope or chain. It will thus be seen that the cone caps the forward end of the log to be drawn and during operation eases its draft by preventing it from ploughing unnecessarily deep in the earth". The cone was designed primarily for the dense cypress swamps of Louisiana and it did not work in Australian conditions.



Above: Baptist Cones in use in the USA.

PORT FAIRY LIFEBOAT

By Peter Evans

Port Fairy is situated in south-western Victoria on the infamous "Shipwreck Coast". A lifeboat for Port Fairy (then known as Belfast) was built in Williamstown in 1857, and is the oldest surviving self-righting, self-draining lifeboat in the world.

The lifeboat (along with those destined for Port Phillip Heads and Portland) was tested off Williamstown in 1858, with *The Argus* of 3 September (p4) reporting that the vessels were ... *constructed of New Zealand Pine, and built on the diagonal principle, the planking going through the keel from gunwale to gunwale; so that there are no buttends to start, and which adds much to the strength of the boat. They have watertight compartments at the stem and stern, filled with airtight cases over which a layer of cork and gutta percha is placed to keep off the action of the sun. The floor is also airtight, and filled with cork. They are also fitted with six patent valves each, so that they immediately discharge all the water they have taken in, in the event of a capsizing. ... They are to be manned by a crew of 10 men pulling 5 oars a side. ... They are fitted with masts and sails and will carry 40 or 50 persons through the heaviest sea in safety.*

Once delivered to Port Fairy by ship, quarterly practice was instituted (usually on a Friday) with "rocket drill" being performed on the same day. The crew (totalling with two steersmen and one bowman 13) was drawn from local fishermen, with a small remuneration offered to encourage attendance. The writer's great-grandfather, Joseph Davis Evans, held the record as the longest serving member with 52 years continuous service between 1878 and 1930.



*Practice for the Port Fairy lifeboat.
 Courtesy Port Fairy Historical Society.*

The Port Fairy vessel was decommissioned as a lifeboat at the beginning of the second World War, and afterwards used as a dredge in the Moyne River, and then abandoned on the river bank in 1975. Through community action (with the support of the Borough of Port Fairy), funds were raised and the lifeboat reconstructed in 1995 (based on a photograph taken in 1888 and the paint colours of the period) and re-launched in January 1997. The Port Fairy vessel is housed in its original lifeboat house (dating from 1861), and is regularly taken to sea by a volunteer

crew. (The writer has been fortunate to have been a part of the crew on two occasions.) Today, there have been over 100 voyages under both oars and sail into Port Fairy bay, and even as far as Portland. The lifeboat, buildings and rescue equipment collection are listed on the Victorian Heritage Register.



Lifeboat crewman Joseph Davis Evans on the deck of his 'conta boat Stanley. Peter Evans collection.



Launching the Port Fairy lifeboat. Photo: Peter Evans.



*The writer manning an oar in place of his late great-grandfather.
 Photo: Mirjana Rasic.*

Why does this lifeboat deserve a place in an Australian forest history newsletter? A small display in the lifeboat shed has samples of the timbers used in its construction, the majority of which are Australasian. They are:

Hull planking	Kauri (<i>Agathis australis</i>)
Hull ribs	White Oak (<i>Quercus sp.</i>)
Stem/stern posts	Red Gum (<i>Eucalyptus camaldulensis</i>)
Apron	Blue Gum (<i>E. globulus</i>)
Hog	Mountain Ash (<i>E. regnans</i>)
Deck shelf	Oregon (<i>Pseudotsuga menziesii</i>)
Sheer	Stringer Blue Gum (<i>E. globulus</i>)
Breasthook	Black She Oak (<i>Casuarina sp.</i>)
For'd Bollard	Karri (<i>E. diversicolor</i>)
Aircase bulkhead	Southern Yellow Pine (<i>Pinus sp.</i>)
Chafing batten	Kauri (<i>A. australis</i>)
Deck	Kauri (<i>A. australis</i>)

EVANS' SAWMILL AND TRAMWAY, HALLS GAP, VICTORIA

By Peter Evans



This postcard (by photographer WH Cooper) is from the writer's collection, and shows a small "Saw Mill on way to Mt. Rosea". Mount Rosea is south of Halls Gap in the Victorian Grampians. This would put the sawmill in the parish of Willam, County of Borung, district of Ararat. Although the forest in the parish of Willam had been cut over by a number of small sawmills from the 1870s, licences issued for sawmill sites on Crown land in this parish during the height of the postcard craze are limited to two: AT Fitzpatrick and EH Evans. Fitzpatrick's were a family of sawmillers spanning several generations, and their mills were typically larger and less-ramshackle than that shown here. So, on the balance of probability, the mill shown here is that of Edward Henry Evans (no relation), and the mill licence date range is 1 April 1909 to 30 June 1910. Unfortunately, this mill falls into the period of management of the Forests Department Victoria (1907-1919); its successor, the Forests Commission of Victoria, destroyed most of its predecessor's files in the 1920s, and no file on this mill has survived. The photograph is interesting for a number of reasons, not the least of which is the tramway system illustrated. Such a well-laid tramway is unusual for a small mill of such brief longevity.

ENVIRONMENTAL HISTORY NETWORK INVITING CONTRIBUTIONS FOR ITS WEBSITE

By Emily O'Gorman

In light of conference cancellations and travel restrictions, the ANZEHN – seeking to share and promote new research in the environmental histories of Australia and New Zealand – is inviting members and other scholars to submit items for informal dissemination via the Network's website. We will be developing a special section to showcase this material.

Material might include (but is not limited to) written items such as short papers, essays, or blog posts, or visual materials including infographics, videos and other digital presentations. Please contact Ben Wilkie for submissions or to discuss your ideas at bvwilkie@gmail.com.

<https://www.environmentalhistory-au-nz.org/2020/03/covid-19-conference-cancellations-send-us-your-material>

ENVIRONMENTAL HISTORY SOCIETIES AND NETWORKS WORLDWIDE

A number of environmental history networks have been established around the world, some of which are members of the International Consortium of Environmental History Organizations (ICEHO). Here are a few:

The **American Society for Environmental History** encourages scholarship on the interactions between humans and the natural world (or among humans and non-humans) through time. Membership of the society is markedly interdisciplinary and international. <https://aseh.org>

The **Environmental History Network for the Middle Ages** is a networking portal for researchers working on medieval environmental history. It is a place to share publication news, conference information, and research ideas. www.medievaleh.org

The **Irish Environmental History Network** is hosted by the Trinity Centre for Environmental Humanities at Trinity College Dublin. Members focus on how humanity has perceived and interacted with the global and Irish environment in any past era. www.tcd.ie/tceh/iehn

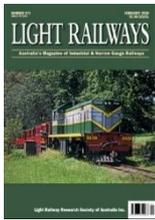
The **Network in Canadian History & Environment** is a confederation of researchers and educators who work at the intersection of nature and history. Its members explore the historical context of environmental matters and communicate findings to researchers, policymakers, and the public. <https://niche-canada.org>

The **Oxford Environmental History Network** at the University of Oxford aims to connect researchers working in environmental history and to promote the latest research and opportunities in this field. www.history.ox.ac.uk/oxford-environmental-history-network

NEW BOOKS AND PUBLICATIONS

Light Railways: Australia's Magazine of Industrial & Narrow Gauge Railways, February 2020 (LR271) and April 2020 (LR272). Light Railway Research Society of Australia. ISSN 0727 8101. www.lrrsa.org.au.

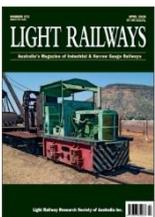
Reviewed by Peter Evans (LR271) and Fintán Ó Laighin (LR272).



LR271 carries a fascinating article by Ian McNeil on the spectacular Glenniffer inclined tramway of the Bellingen Timber Company in northern NSW. The 4 ft gauge incline, started in 1911 and completed in 1913, was dead straight for all its length. It fell 800 metres over a length

of just 3 km. Built down the Syndicate Spur from the Dorrigo Plateau, the undulating terrain along the ridge was minimised as far as possible by building large sections of line above the ground on timber trestles. Even so, the difficult terrain required a novel method of working. A steam winch was installed at approximately the halfway point and the incline was worked in two sections. Hoop Pine logs (*Auracaria cunninghamii*) were brought to the head of the incline by bullock team. They were then loaded onto a sturdy trolley worked from the steam winch by an endless-loop cable. At the head of the incline, the rope passed around an ex-coliery pit-head wheel. Once down at the winch site, they were rolled onto a second trolley for their journey down the final stage of the incline. This section was less undulating and could be worked with a single wire rope driven from a separate drum on the same winch. The operation of the incline was challenging given the very high rainfall in the area and the consequent potential for washaways, which would have to be replaced by new trestle work. The incline was removed during the depression of the 1930s after the Dorrigo Railway had improved access to the plateau in 1924. Today, the route of the incline forms part of the Syndicate Ridge walking track.

The rear cover of this issue has two fine images of Bunnings' steam locomotive No.176 on the Donnellys River sawmill line in WA. The images were taken in 1966 as part of a railfan excursion. The locomotive was preserved at Yarloop, but was burnt in a bushfire in 2016, and now stands rusting in the open.



LR272 starts with an article by John Browning titled "Early internal-combustion locomotives in Australia" which includes among its pages a short discussion of a locomotive built in Warburton (Victoria) in 1911 by local blacksmith

Gilbert Fox for EA Robinson of the Enterprise Sawmill. It's described as "Possibly the first successful internal combustion locomotive in the Victorian forests (and) worked successfully for more than 15 years". A photo of the locomotive is included. The Field Reports column includes one by Peter Evans on the Fitzpatrick brothers' tramway, near

Healesville, which operated in the early 20th century. The four brothers were the sons of pioneer Victorian sawmiller Patrick Fitzpatrick. The article is accompanied by a short history, a survey report, an analysis, references, a detailed map and even a photo of a wheelset from the tramway.

The Heritage & Tourist News column includes a paragraph on Timbertown at Wauchope and a full page of photos, while the letters page includes two in response to Ian McNeil's article in the previous issue on the Bellingen Timber Company and the Gleniffer Incline Tramway.

Thanks to Mike Roche for advice of the following two publications.



Robert Vennell, 2019. *The Meaning of Trees: The history and use of New Zealand's native plants*. HarperCollins, New Zealand, 256pp. ISBN 9781775541301.

From the publisher's notes.

A guide and gift book in equal measure, this treasure of a book pays homage to New Zealand's native plant species.

The Meaning of Trees tells the story of plants and people in Aotearoa New Zealand. Beautifully illustrated with botanical drawings, paintings and photographs, it shows us how a globally unique flora has been used for food, medicine, shelter, spirituality and science. From Jurassic giants to botanical oddballs – these are our wonderful native and endemic plants, in an exquisite hardback edition.

www.harpercollins.co.nz/9781775541301/the-meaning-of-trees.



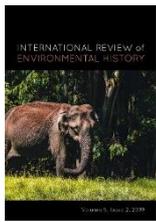
Howard Wearing, 2019. *Farewell Silent Spring: The New Zealand Apple Story*. New Zealand Plant Protection Society, 278pp. ISBN 9780473487300.

From the publisher's notes.

Farewell Silent Spring tells the story of how, in the course of 50+ years of dedicated R&D, highly toxic broad-spectrum pesticides were removed from the pipfruit orchards of New Zealand. It shows how spraying by the calendar, regardless of need, has been replaced by pest monitoring, biological control, and sophisticated techniques like mating disruption and selective chemicals that are toxic to pests and safe to beneficial species. Integrated fruit production, and then Apple Futures, as the new programme became known, is shown to be on a par with organic production in terms of biodiversity and safety to the environment and human health, while maintaining the premium fruit quality required by export markets. New Zealand apple growers can say farewell to the "Silent Spring" predicted by Rachel Carson in her landmark book of 1962.

<https://nzpps.org/book/farewell-silent-spring>

Thanks to the Environmental History Network for advice of the following three publications.



International Review of Environmental History. Vol. 5, Issue 2, 2019.
 ISSN 2205-3204

The *International Review of Environmental History* takes an interdisciplinary and global approach to environmental history. It encourages scholars to think big and to tackle the challenges of writing environmental histories across different methodologies, nations, and time-scales. The journal embraces interdisciplinary, comparative and transnational methods, while still recognising the importance of locality in understanding these global processes.

The latest issue ranges widely, with articles on tobacco production in Southern Rhodesia, how statistics on biofuels can mislead, an examination of claims that rain follows agriculture, tiger hunting by British women in colonial India, and an article presenting a case for environmental historians to reassess Adam Smith's environmental legacy. While none of the articles are specifically on forest history, there are many references to forests throughout the journal.

<https://press.anu.edu.au/publications/journals/international-review-environmental-history/ireh-volume-5-issue-2-2019>



Libby Robin, 2019. "*Hi-Vis Futures: Art for Climate Justice*", International Consortium of

Environmental History Organizations.

This article, by AFHS member Libby Robin, accompanies an exhibition that was held at Canberra Museum and Gallery (CMAG) from mid-November 2019 until early February 2020. Described on the CMAG website as "A collaboration between artists Mandy Martin, Alexander Boynes and musician Tristen Parr, *High-Vis Futures* is a sequence of sound, video projection and mixed media artworks depicting the intimate connection between industry, carbon emissions and the end of the fossil fuel era."

The article notes that the exhibition references "works by environmental historians – engaging the partnerships of the humanities across different media, tying them together through the 'fluoro' colour-scheme dictated by Hi-Visibility workers' vests. German historian Christof Mauch's idea of Slow Hope is the focus of one of these panels. The wall of ideas sends the visitor into the exhibition liberated from the need to attend to the works in a particular order, but rather encouraging meditation with quiet works between the major Climarte galleries, exploring the 'stories of ecological alarm and stories of slow hope' together, to use Mauch's words."

The exhibition coincided with the fires of the 2019-20 summer, and the article concludes:

This is an exhibition Australia has been crying out for. It takes climate change seriously, empowering viewers to engage at their own pace, and sends them

out to take action, small and large, to do whatever they can do. As they step outside, the reality of climate change is all about them: Canberra's air quality during this exhibition has been amongst the worst on the planet. This elegant inland city, without any heavy industry and with one of the best local renewable energy systems in the country (and the world), labours under its dual burdens of toxic smoke and failed leadership. The smoke from the unprecedented mega-fires that blaze in its hinterland stifles breathing and renders Parliament House invisible from the city centre. This year's fires have deprived Canberrans of summer holidays. The coastal communities that are usually the places of respite in the hotter months are inaccessible. Every road is closed. This is the moment for *Hi-Vis Futures*. Right now, in "low-vis" Canberra, we need art that inspires new conversations about climate change and the future.

<http://www.iceho.org/artforclimate>

<http://www.cmag.com.au/exhibitions/hi-vis-futures>



Kyuhyun Han, November 2019.

"Bending the Rules: Forest History in Northeast China" in

Environmental History Now: A Platform on Representation, Engagement, and Community.

"Environmental History Now" is a website that showcases the work and expertise of graduate students and early career scholars in environmental history who identify as women, trans and non binary people.

Early in this article by Korean writer Kyuhyun Han, she writes:

After sharing that I came to Yichun for my dissertation research on forestry history of the People's Republic of China, I was told that I came to the wrong place. "There's nothing here. No history. Nothing special to study. Why don't you go to places like Beijing or Shanghai?" I just shrugged, thinking there's no place without historical significance."

And she then goes on to prove her point. She starts by mentioning the difficulty that foreigners have in accessing archives in China, and then displays her resourcefulness in finding alternative sources. She challenges the view that environmental policy was neglected during the Mao era (1949-1976), and notes discrepancies between central government edicts and how they were applied by local governments, including in relation to the indigenous people who are variously romanticised by governments as "magic hunters of the forest" or demonised as "bandits who trafficked in opium".

Her profile page on the UC Santa Cruz website says that the article "was introduced by Environmental historian Dr. Jessica DeWitt as one of the worth reading online articles of the month".

<https://envhistnow.com>

<https://envhistnow.com/2019/11/21/bending-the-rules-forest-history-in-northeast-china>

<https://history.ucsc.edu/graduate/Graduate%20Student%20Directory/index.php?uid=kha10>