



Making silk

Australia is said to have made her fortune riding on the sheep's back. But if some of the early visionaries of the Agricultural Society of NSW had their way, quite a different animal may have made our wealth – silkworms.

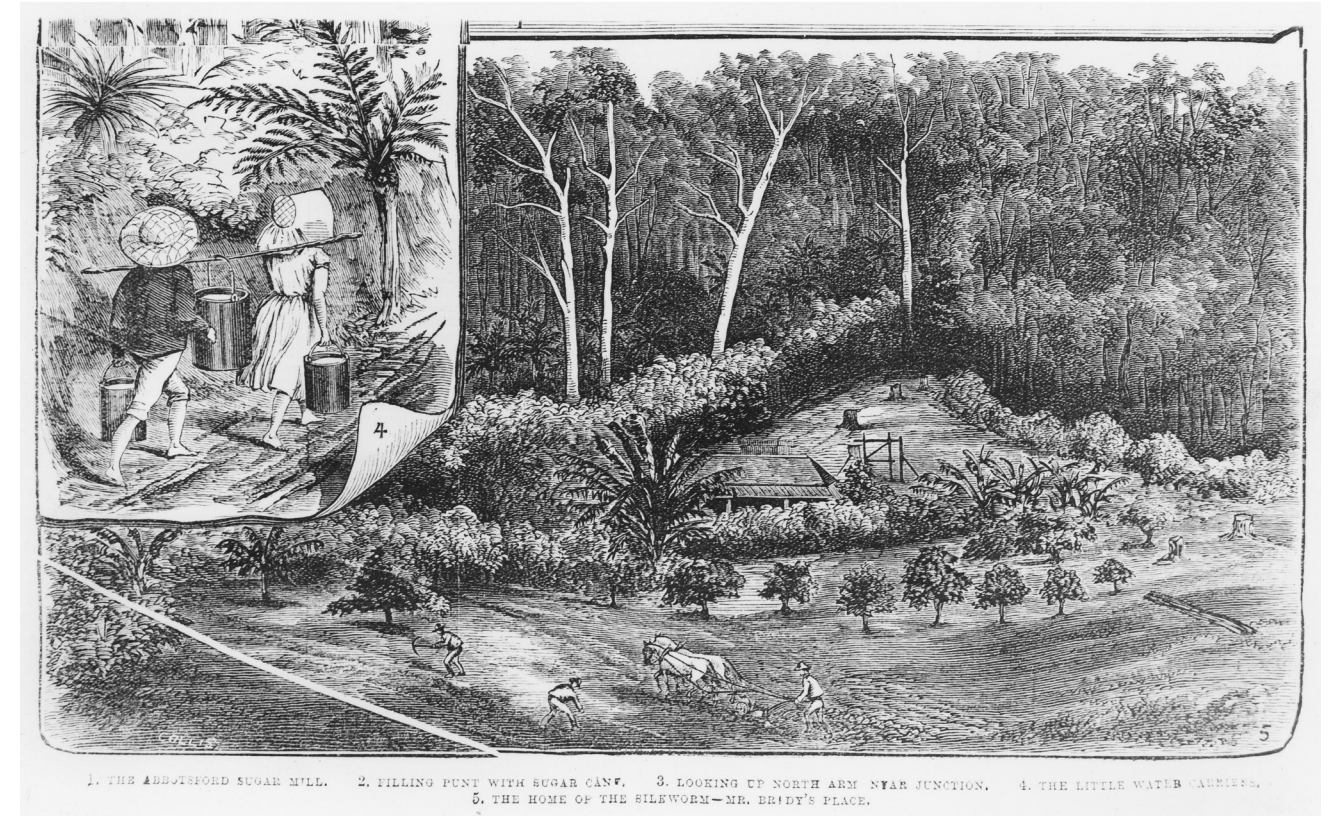
BOMBYX MORI. Most of us, at some point in our childhoods, carried the caterpillars of this moth home from school in cardboard boxes poked with holes and filled with mulberry leaves. The sudden, almost magical appearance of silkworms was a sure sign of spring. We searched our neighbourhoods looking for mulberry trees so we could gather fresh leaves to feed them. That we found those trees quite readily once our eyes were opened, may have to do

with an interesting phase in Australia's agricultural history – the 19th century push to establish a silk industry.

By the 1870s the economic circumstances were perfect. Sericulture had every prospect of succeeding – not just as a cottage industry, but as a super industry, capable of bringing in many millions of pounds. So why wasn't silk spun into gold?

For the colony of New South Wales to flourish, valuable exports had to be

found and as early as 1825 there was speculation about silk, with the Australian Agricultural Company declaring it would invest in mulberry trees. Mulberry grew well in our climate and small scale experiments proved that imported silkworm eggs, or 'grain', could be successfully hatched and raised. In the 1840s several influential gentlemen, including TS Mort who later became president of the Agricultural Society of NSW, invested in an experimental silk



1. THE ABERFORD SUGAR MILL. 2. FILLING PUNT WITH SUGAR CANE. 3. LOOKING UP NORTH ARM NEAR JUNCTION. 4. THE LITTLE WATER WHEELS. 5. THE HOME OF THE SILKWORM—MR. BRADY'S PLACE.

farm at Eastwood. Over 4,500 mulberry trees were planted and the quality of the silk produced was said to be highly promising when sent to London for appraisal. However, insufficient capital was the undoing of the enterprise.

When gold was discovered, large scale sericulture was forgotten for a decade. But trouble was brewing in Europe which would devastate the silk trade there for the next thirty years, opening the door for Australia.

The silkworms of Italy and France had become diseased. By the mid-1860s the situation was catastrophic. The French government instructed the great Louis Pasteur to look into the epidemic. But it took him years to isolate the viruses concerned and devise practices to reduce their spread, by which time the industry, especially in France, was almost wiped out. Chinese and Japanese operations were also hit, though somewhat later and to a lesser extent.

Our silkworms were disease free, pure bred from original stock. Moreover, a local silkworm expert, Mr Charles Brady, had managed through his own careful breeding program to return vigour to races imported with the disease. Brady's experiments were closely monitored by senior members of the Agricultural Society. Its Silk

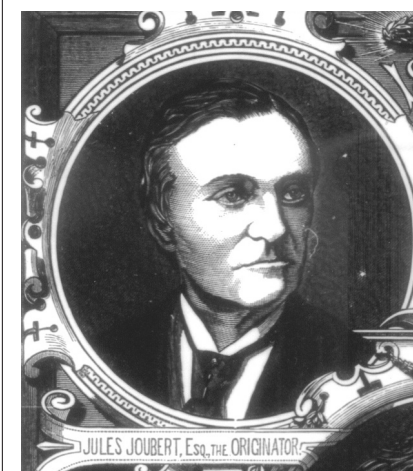
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Committee, formed in 1869, was active on many fronts, gathering and disseminating information, and lobbying government to mandate the planting of mulberry trees at homes, schools and on properties everywhere. The Society also

distributed cuttings itself.

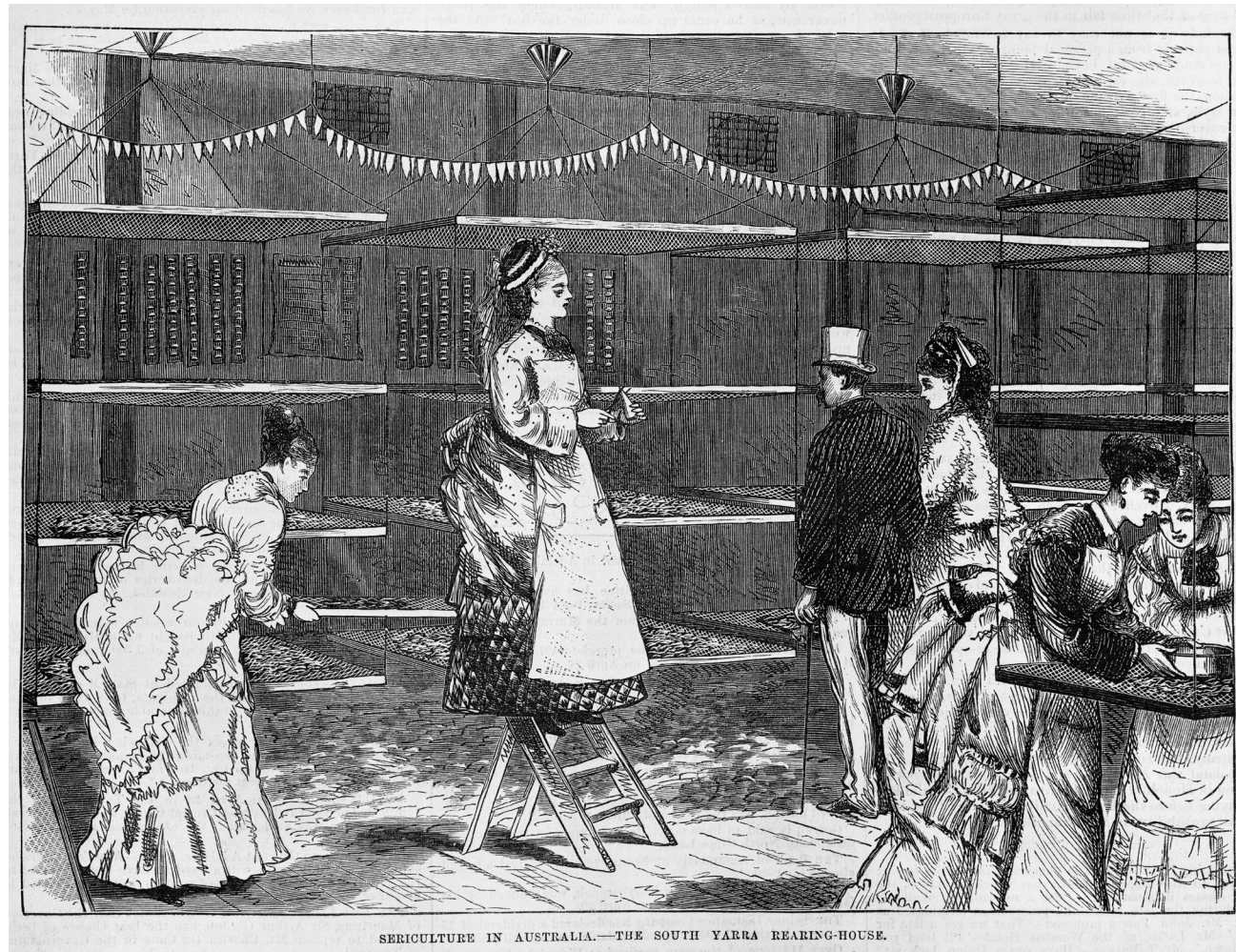
This was the start of a tremendous decade of activity for the Agricultural Society as whole. Two important decisions set the energy in motion: the annual Exhibition was moved from Parramatta to Sydney; and a full time secretary was employed for the first time – the dynamic Frenchman, Jules Joubert – who was a keen supporter of sericulture himself. His ability to translate letters and information from the French Ministry of Agriculture proved helpful.

With no Department of Agriculture in New South Wales until 1889, the Society acted as such, encouraging scientific advances and advising on new methods. The Society stocked books on sericulture in its library; it distributed pamphlets and regularly published articles on the subject in its new monthly journal, the Journal of the Agricultural Society of NSW, edited by Joubert. Like-minded people throughout the colony communicated with each other through the Journal, sharing knowledge and offering free



ABOVE, CLOCKWISE: ENGRAVING OF JULES JOUBERT CIRCA 1879-80. SILK COCOONING 1895. CHARLES BRADY'S SILKWORM FARM, TUMBULGUM, NSW, 1881.

IMAGES COURTESY OF THE STATE LIBRARY OF VICTORIA AND THE STATE LIBRARY OF QUEENSLAND.



SERICULTURE IN AUSTRALIA.—THE SOUTH YARRA REARING-HOUSE.



ABOVE: A MODERN SILKWORM HOUSE 1895. OPPOSITE: THE SOUTH YARRA REARING-HOUSE 1874.

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mulberry cuttings and packets of eggs in a bid to develop the industry. At its annual Shows, the Society awarded prizes in various classes, especially encouraging the progress of commercial exhibitors.

Access to international markets was vital and in this the Society played a significant role, liaising with the newly established Silk Supply Association of London.

Potentially, Australia had two valuable products to sell: silk and 'grain'. After the silkworm has spun itself into its cocoon, the cocoon is boiled. This kills the animal inside before it can

emerge as a moth which would damage the kilometre-long, single thread that makes up the cocoon. But because no adult has survived to lay eggs, replacement grain must be found.

Europe was desperate for grain, with Japanese sources falling short by about one million pounds worth annually.

Charles Brady had continued with his experiments, observing that silkworms grew faster in Australia than in Europe by several days. This fact coupled with other revolutionary discoveries of his, showed that Australian production could be hyper-accelerated.

By manipulating temperature, Brady worked out how to control egg hibernation, hatching batches on demand to extend the season. As long as there were mulberry trees around in the right stages of leaf to feed them, silkworms could be reared factory-style in numbers to suit available labour. Brady had closely studied the cultivation of mulberry varieties so was able to advise the best combination of plantings to keep the

process going as long as possible.

We had the climate, the healthy stock, the expertise and it seemed we had the enthusiasm. When the Agricultural Society of NSW put on a special Silk Show in 1871 (the first of several), interest was so high the Show was extended.

All through the 1870s the promotion of sericulture was a live topic in newspapers and a subject of political debate. Constant requests were made for government assistance. Success was not possible without it, said experts. There were calls for Charles Brady to be officially employed as a development officer and schemes were put forward to speed up the planting of mulberry trees throughout the colony. Many people believed education programs should be introduced throughout the school system to train the young for future work in sericulture, and legislation to this effect was promised.

Several schools already ran sericulture projects, most notably the Randwick Asylum for Destitute

Children. A great social good could come of sericulture, it was claimed, if a cottage industry existed alongside big operations. Not much was required to set up, and townsfolk could just as easily take up the business. The work was good for women and children as it was not difficult and only seasonal. The annual incomes of a whole stratum of people could be greatly improved, so increasing the general affluence of the colony.

The foremost female sericulturalist, Mrs Bladen Neill of Corowa, was very energetic in her promotion of the cause. She had 50 acres of her own under cultivation but had also been involved in a Victorian women's cooperative. In 1873 she persuaded the Bank of NSW in Sydney to give over their large drawing room for a meeting to establish the NSW Ladies' Silk Association. Seventy women attended.

Though the Agricultural Society had done everything it could to promote sericulture during the 1870s, by decade's end nothing much had come of government pledges to assist. Opinion

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was divided over child labour issues and there was ideological opposition to state support of private enterprise.

When a group of Italian settlers arrived in Sydney in desperate circumstances, the government paid for an overseer to help set up a commercial silk farm by the Richmond River, in an area still known as New Italy. It was more an act of charity than serious policy and when the economic depression of the 1890s hit, support was withdrawn. Silk production at New Italy became little more than a hobby.

In 1893 a NSW government report into sericulture concluded that the industry was still ideally suited to the colony and should be established, but only with government backing and a renewed will. This last was critical, and a cultural issue. With no history

of sericulture behind us, the report said, people were not naturally inclined to take the farming of worms seriously, it was not seen as manly work, and the potential of the business was not understood.

The report was shelved, perhaps for the best because the world was changing. Silk was becoming less fashionable and cheaper as weaving processes industrialised. And with chemical advances, the first synthetic fabrics were appearing – notably artificial silk, or viscose. There was still money in the trade but Australia had missed its golden opportunity. If only we had acted when the Agricultural Society and its fellow travellers first beat the drum, we may have been an industry leader. ■