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# Pera Bore Experiment Farm: Greening the 'Howling Desert'

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## Abstract

In the late nineteenth century the Pera Bore, not far from Bourke, became the site of a unique experiment farm. No other government experiment farm was located so far from a capital city or agricultural district. The experiments were to test the suitability of old rain – artesian water – for irrigating small agricultural holdings in the rangelands. What happened at Pera Bore and why was it built? What agenda drove the push for agriculture in the dry interior? How did the experiences at Pera Bore and other western experiment farms shape science and broader attitudes towards the occupation of semi-arid places? This paper explores a short episode in the early history of agricultural science in Australia, and asks what might the story of the western experiment farms bring to current reflections on knowledge for place?

## Introduction

In 1912, late on a winter's afternoon, the editor of the Bourke *Western Herald* led a party on a tour of the government experiment farm and artesian irrigation settlement at Pera Bore. After travelling 20 kilometres into a strong westerly wind that carried tonnes of red dust, past barren plains and the dried scraps of dead saltbush, the visitors arrived at Pera Bore to behold a 'glorious sight'. Cut out of the gidgee scrub were neat rectangular blocks of 20 acres each. On these grew millet, maize, dates, and citrus fruits, all watered with a mile and a half of irrigation channels. They saw orange groves with 'beautiful green' foliage and 'luscious' fruit. 'Fancy,' said the visitors 'millions of golden globules hanging from the trees'.

This, they declared, truly was 'an oasis in the desert'.<sup>1</sup> Less than a decade later the settlement was abandoned. This was a place where science for agriculture had met its limits.

What happened at Pera Bore and why was it built? What agenda drove the push for agriculture in the dry interior? How did the experiences at Pera Bore and other western experiment farms shape science and broader attitudes towards the occupation of semi-arid places? How might the story of Pera Bore inform current reflections on knowledge for place?

### **A difficult first year**

Settlers began arriving at Pera Bore in August 1895 to find their 20-acre blocks were surveyed on a 'depressing, gidgee-covered waste'.<sup>2</sup> They spent the rest of winter and all of spring scrub-clearing. It was summer before they put their first crops in. Then, a heatwave struck Bourke. It did not drop below 46°C for a fortnight.<sup>3</sup> Critics described Pera Bore as 'a howling desert, the water of its bore as malignant as a fountain of corroding soda, as devastating as Vesuvius, as bitter as Marah to the Israelites, as fatal as the Red Sea to the Egyptians'. Sixty one people died during the heatwave.<sup>4</sup> One of the first to perish was Daniel MacDougall, the manager of Pera Bore Experiment Farm.

The following month the replacement manager for Pera Bore was delayed. Can you guess what natural event was responsible for this? Rain: the 'heaviest fall ever known in the west'.<sup>5</sup>

Surrounding villages and stations were reporting falls of up to 12 inches, almost the annual average. Parts of the railway line between Nyngan and Bourke were under water, and every 10 or so miles washaways had damaged the lines. At Pera Bore there was not much the settlers could do but wait for the new manager, for the deluge had destroyed what was left

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<sup>1</sup> "Pera," Western Herald, 1 June 1912.

<sup>2</sup> "Pera Possibilities," Western Herald and Darling River Advocate, 8 February 1896.

<sup>3</sup> "The Weather," Western Herald and Darling River Advocate, 25 January 1896.

<sup>4</sup> "The Fatal Heat Wave," Western Herald and Darling River Advocate, 29 January 1896.

<sup>5</sup> "The Rain," Western Herald and Darling River Advocate, 15 February 1896.

of their crops, leaving the farms, as the Western Herald described, 'a mass of bedraggled and rotting vegetation'.<sup>6</sup>

### **Some gains before the decline of Pera Bore**

By 1900 the *Agricultural Gazette* was reporting good progress at Pera Bore. In the first few years the settlers built a school and even a sportsground. They fielded a cricket team in the regional competition. Nineteen out of 20 blocks were taken. In 1898 the Postmaster General approved a mail service for Pera Bore, and 170 letters a fortnight went out.<sup>7</sup>

The experiment farm and settlers grew cotton sourced from the USA, teosinte from South America, sorghum from South Africa, Canadian Wonder Beans, and date palms from the Trial Gardens of Hamma in Algeria. They also grew olives, almonds, grapes, nectarines, peaches, prunes and all kinds of vegetables.<sup>8</sup>

Eventually most of the plantings failed at Pera Bore. The red ground turned to 'cement', the water was too alkaline for shallow sandy soils, and the flow from both the old and the new bores had stopped and could only be raised by pumping. The government closed the farm and removed any improvements. The settlers left over a period of ten years, and the experiment farm retreated to Nyngan, which in turn retreated to Trangie. By 1920 the government had leased the old farm site at the Pera Bore to the Fort Bourke Pastoral Company.

### **Why attempt to green the 'howling desert'?**

Why did the NSW Government encourage horticultural settlers to go to this extraordinary place? Why were professional men of science trying to green the desert? The government wanted agriculture to act as a corrective to the social and environmental problems that had occurred during the occupation of the inland.

Pastoralism had radically altered the inland grasslands environment. Native grasses were trampled into dust and never came back. Woody scrub took over. Large scalds opened up. Many species were already driven to extinction by the end of the nineteenth century

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<sup>6</sup> "Pera Settlement [I]," *Bourke Western Herald and Darling River Advocate*, 10 April 1897.

<sup>7</sup> "Pera Bore Post Office File [Box 519]," (Canberra: National Archives of Australia, 1898).

<sup>8</sup> "Pera Settlement [I].", "Pera Artesian Bore Settlement," *The Agricultural Gazette of New South Wales* 9 (1900), W. J. Allen, "The Date Palm," *Agricultural Gazette of New South Wales* 21 (1910).

(Lunney, 2001). Inland villages, in the words of Ernest Favenc, were left 'sun-devoured and sand-swept'.<sup>9</sup> The pastoral occupation of the plains degraded the environment so much that Royal Commissions in 1885 and 1901 raised these concerns about the condition and treatment of the country, and the culture of over-stocking.

All the while the colonisers were contending with economic, social and environmental failure, they were troubled by an underlying fear about the effect of environment on people and culture. Like other European settlers in colonies around the world they were 'haunted by the spectre of degeneration' (Griffiths, 1996). People feared that sparse settlement lacked any civilising influence. The inland frontier, with its itinerant labourers, nomadic drovers, absentee owners, and impermanent communities, was shifty and elusive. Proximity became an obsession that underpinned the rhetoric for agricultural development in Australia.

Agriculture, the governments hoped, could return civilisation to the frontier, it could fill the big emptiness they were so anxious about, it could justify possession, it could prevent further environmental degradation as people learned to farm for the long term and were informed by scientific principles.

## **Concluding reflections**

Was Pera Bore a failed experiment or an unfortunate tragedy? The variable conditions the experimentalists and settlers encountered there were not exceptional; they were the norm in the Australian drylands. The people at Pera Bore discovered that the hard way. However, that was partly the point of the putting an experimental farm in those extreme conditions. Australian agricultural scientists were innovative in breaking with the Rothamsted experiment farm model, which universalised place, and instead embarked on a program of discovering what was possible in different Australian conditions. Viewed this way, some of the other failed western experiment farms were successful examples of early place-based science. The government experiment farm at Coolabah, 130 km south east of Bourke, had

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<sup>9</sup> Ernest Favenc, "Unfulfilled Dreams of Australia," *Sydney Morning Herald*, 23 November 1901.

an official mission to start transforming the Bogan scrub country into wheat paddocks. The manager there, however, adapted to the local conditions and began experiments with saltbush, carrying out what Jim Noble suggests were probably the 'first formal rangelands research undertaken in Australia' (Noble, 1997).

Ultimately, Pera Bore failed because it was driven by state, and later national agendas addressing cultural anxieties and social problems. For politicians and the broader Australian public, agriculture has long served social purposes before economic or even food and fibre purposes. The experiences at the early western experiment farms such as Pera Bore show it is important from whom and where those agendas emerge. Perhaps it is the people and places of the rangelands, in adaptive partnerships, that have always been best-placed to say what is right for the rangelands.

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