

SELECTED TITLES AVAILABLE IN THE SERIES

WRITING IMPERIAL HISTORIES
ed. Andrew S. Thompson

MUSEUMS AND EMPIRE
Natural history, human cultures and colonial identities
John M. MacKenzie

MISSIONARY FAMILIES
Race, gender and generation on the spiritual frontier
Emily J. Manktelow

THE COLONISATION OF TIME
Ritual, routine and resistance in the British Empire
Giordano Nanni

BRITISH CULTURE AND THE END OF EMPIRE
ed. Stuart Ward

SCIENCE, RACE RELATIONS AND RESISTANCE
Britain, 1870-1914
Douglas A. Lorimer

GENTEEL WOMEN
Empire and domestic material culture, 1840-1910
Dianne Lawrence

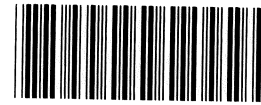
EUROPEAN EMPIRES AND THE PEOPLE
*Popular responses to imperialism in France, Britain, the Netherlands,
Belgium, Germany and Italy*
ed. John M. MacKenzie

SCIENCE AND SOCIETY IN SOUTHERN AFRICA
ed. Saul Dubow

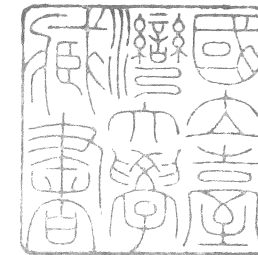
New Zealand's empire

EDITED BY KATIE PICKLES AND
CATHARINE COLEBORNE

國立台灣大學圖書館



3840420



MANCHESTER
UNIVERSITY PRESS

3840420

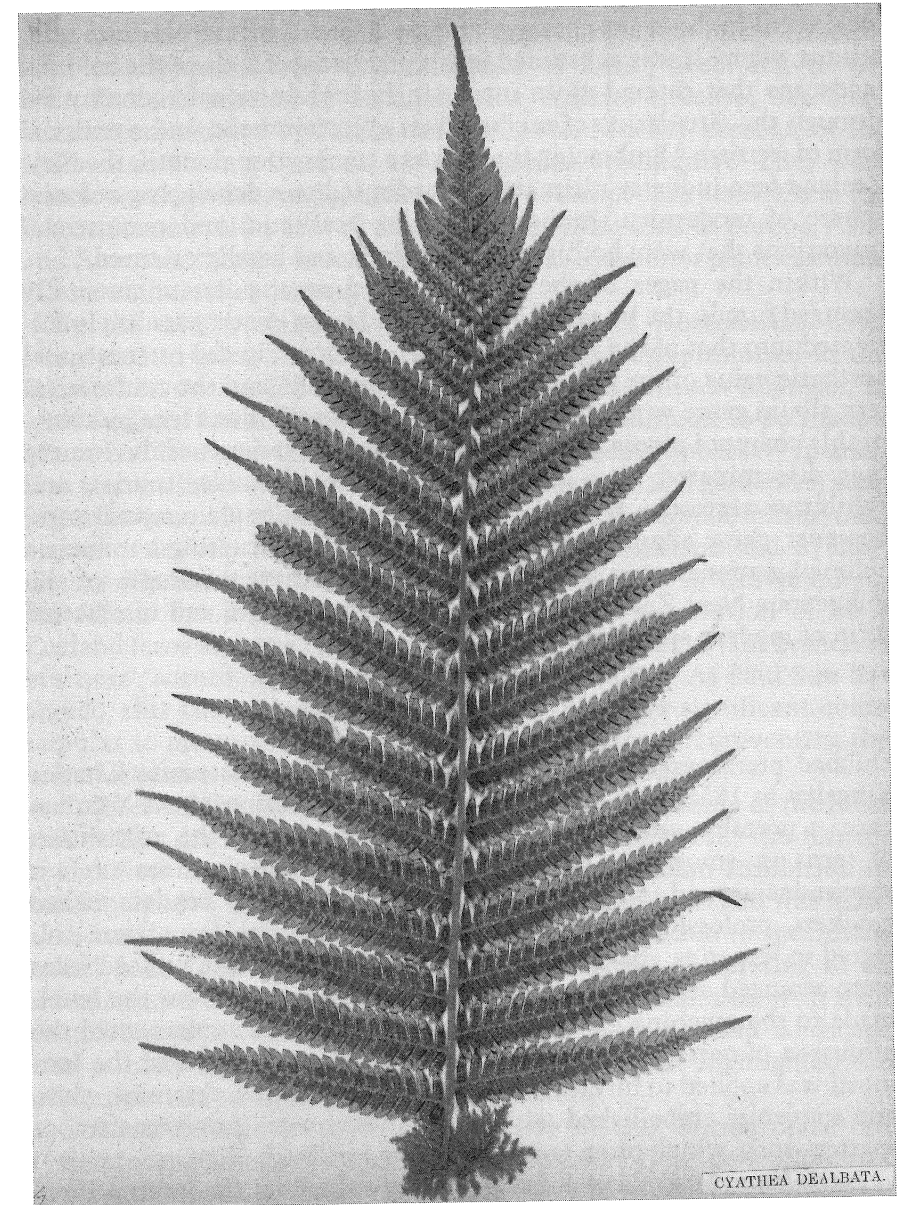
CHAPTER SIX

'The world's fernery': New Zealand, fern albums, and nineteenth-century fern fever

Molly Duggins

Through fern fever, an aesthetic science in which ferns oscillated between specimens, decorations, and souvenirs, the New Zealand landscape was transformed into a worldwide phenomenon in the latter half of the nineteenth century. While Australasian ferns were lauded abroad as curiosities and commodities, in the colonies they were embraced as cross-cultural landmarks entangled in notions of locality, identity, and industry, with the endemic *Cyathea dealbata*, or silver tree fern, taking on emblematic proportions as a national symbol in New Zealand (Figure 6.1). Promoted as a world set apart, with a unique indigenous landscape and as a modern and accessible tourist attraction, New Zealand was represented as the 'Pacific's wonderland' in natural history and travel literature. This coalesced in *The South Pacific Fern Album*, ca. 1889, a luxury gift-book combining pressed New Zealand fern specimens with an illustrated letterpress introduction, produced by Mary Ann Armstrong (1838–1910) and published in Melbourne in ca. 1889.¹

Subscribing to a genre of commercial New Zealand fern albums compiled in the colonies between the 1870s and 1890s, *The South Pacific Fern Album* (SPFA) was geared to entice the botanical collector, colonial tourist, and armchair traveller of empire alike. Such albums embodied the vibrant New Zealand fern industry that evolved in tandem with the commodification of natural history in the mid- to late nineteenth century, engaging in multi-directional botanical exchanges through trade and exhibition. Marketed as a collection of living ferns, New Zealand supplied a range of world-wide gardens and herbaria with fern specimens through a network of colonial nurserymen and fern dealers. This scientific and horticultural trade mirrored New Zealand's export industries of farming and agriculture, forestry and mining, which took the fern, and its association with a fast-disappearing pristine wilderness, as its trademark.² As a promotional medium, the fern became a



6.1 *Cyathea dealbata*, fern specimen on paper, 'Ferns of Australasia', ca. 1900, Mary Ann Armstrong (State Library of Victoria, H94.11/7).

focal point in the representation of New Zealand at international exhibitions, where it was subsumed into a popular spectacle of the colonial landscape that catered to an increasingly mobile visual economy fed through the circulation of media, mass entertainment, and a national form of tourism.³ Embracing the fern as a transnational motif, the New Zealand fern industry ultimately contributed to a developing colonial sphere of modernity through scientific, aesthetic, and commercial migrations that were both global in outlook and locally oriented.⁴

Within the pages of the *SPFA*, nestled among its ornamentally arranged fronds, the image of New Zealand as an exotic paradise is cultivated into that of the 'world's fernery', anchored in the international aesthetic value of the fern.⁵ Focusing on the *SPFA* and the commercial fern album genre within the context of the New Zealand fern industry, in this chapter I assess such albums as portable variants of the fernery that disseminated New Zealand ferns through trade, tourist, and exhibit networks. Beyond their significance as mobile repositories, however, these albums were also engaged in constructing a romantic colonial nationalism through enacting the fernery's collapse of the indigenous New Zealand landscape into an intimate and interactive form of modern spectacle.

The New Zealand fern industry

Dubbed 'pteridomania' by the British clergyman and naturalist Charles Kingsley in 1855, fern fever was fed by the invention of the Wardian case, a portable sealed glass container that enabled the cultivation of ferns in smog-filled city spaces and the transportation of fern specimens around the globe.⁶ Available from country vendors, urban hawkers, professional collectors, and nurseries, live ferns were collected in ferneries, rockeries, and botanic gardens, while pressed ferns were arranged and displayed in herbaria and albums. From the hand-made to the machine-made, fern-inspired imagery complemented the profusion of patterns that defined mid-Victorian design, and the fern motif was applied to furniture, cast ironwork, textiles, ceramics, glass, and souvenirs embellished with pressed specimens, fern transfers, or spatter-work, which often featured foreign species.⁷

Ferns from Australasia were especially valued on the international market for their size, abundance, diversity, and connection to the remote antipodes. One of the most popular exhibits at the London International Exhibition of 1862, which was the first to include a significant collection of fern specimens and decorations, was Eugene von Guérard's *Ferntree Gully in the Dandenong Ranges* (1857), a lush and shadowed Australian landscape dominated by tree ferns that inspired

fern tourism in the colonies and an export industry of specimens.⁸ 'Universally praised for their elegance of form', according to the New Zealand missionary and naturalist William Colenso, tree ferns were recommended by Ferdinand Baron von Mueller, director of the Melbourne Botanic Gardens, as 'ideal garden ornaments'.⁹ They were sent to stock gardens and glazed ferneries as antipodean sentinels in the English countryside, as well as to enhance collections in Europe, Asia, and America, thereby revealing the imperial transfer of plants as more than a unilateral endeavour.¹⁰

By the 1860s, elaborate nursery displays of Australasian ferns attempted to bring von Guérard's image to life, as epitomised in the Tropical Fernery at J. Backhouse & Son's, which William Robinson in 1864 declared formed 'a sight which it would be difficult to persuade a Maori had not been bodily transferred from the Antipodes'.¹¹ In addition to contributions from British horticulturalists and gardeners, such ferneries were supplied by a growing number of colonial nurserymen and fern dealers, including Arthur Yates in Auckland and Sydney, George Matthews in Dunedin, and Adams & Sons in Christchurch, for whom the intercolonial and international exportation of New Zealand ferns and tree ferns had 'become quite an important branch of business', according to the *Otago Witness* in 1878.¹² As Paul Star has argued, this colonial commercial network offered a significant counterpoint to metropolitan botanical exchange, often circumventing the imperial centre to engage directly with foreign markets.¹³

At later exhibitions large-scale ferneries provided some of the most spectacular displays. Complete with artificial rockwork, the fernery of the New Zealand Court at the Colonial and Indian Exhibition in London in 1886 was the largest of the colonial ferneries and was filled with tree ferns exported from New Zealand, in addition to specimens culled from local botanical gardens and nurseries.¹⁴ Catering to an urban London audience of cosmopolitan consumers familiar with such manufactured spectacle, it transformed the New Zealand landscape into a three-dimensional promotional postcard that highlighted the wilderness and natural resources of the colony.

Colonial fern fever was not derivative of this British craze but a **reciprocal and complementary phenomenon**. The collection and display of ferns held special significance in the Australasian colonies, where the plethora of local species became a symbol of pride. In the wake of Joseph Dalton Hooker's *Flora Novae-Zelandiae* (1851–53), a number of books on New Zealand ferns were locally published to cater to the amateur colonial pteridomaniac, and collections of ferns were displayed at colonial exhibitions, featuring at the New Zealand exhibition held in Dunedin in 1865. Open-air ferneries were established in

Australia from the 1870s and New Zealand from the turn of the century and took pride of place in colonial exhibitions, such as that at the New Zealand and South Seas Exhibition in Dunedin in 1889. This was described in the press as 'a splendid advertisement for the beauty of the native ferns of New Zealand', and was the subject of fervent proposals for its preservation after the closing ceremony.¹⁵

To these constructed sylvan retreats was added a conventionalised New Zealand tourist circuit that emerged towards the end of the New Zealand Wars, centred upon the fern and Māori. Beyond intercolonial travel, increased steamship operations meant that visitors could reach New Zealand directly from Britain in forty to forty-five days, with alternate routes via New York, San Francisco, and Honolulu.¹⁶ Guidebooks such as *Maoriland: An Illustrated Handbook to New Zealand*, issued by the Union Steamship Company of New Zealand Ltd in 1884, provided information on popular ferny districts, the tourism of which revived local Indigenous material culture.¹⁷ A range of botanical guides and souvenirs were produced to support this industry – from collections of pressed specimens to scenic photographs of ferns and fern-decorated handicrafts that were available in situ, as well as from larger towns and ports.

Colonial commercial fern albums produced from the 1870s form a distinct subset of this genre; they offered the experience of a virtual tour through the assemblage of fern varieties collected throughout the islands and provided a tactile medium through which to intimately connect with the New Zealand landscape. Experienced through the revelatory process of turning the page and fingering fronds, crosiers, mosses, and lycopods, these albums evoked the sensory spectacle of wandering down a fernery path bordered by densely textured specimens. Through the inclusion of preserved mature fronds displaying spores capable of germination, they also functioned as portable nurseries, adding to the circulation of plants that traversed the spaces of empire. Luxurious bespoke volumes governed by a strong ornamental component that appealed to a genteel audience caught up in the fad of collecting natural history, they embraced the commodity status of the fern and were produced not only to enrich the amateur botanist's cabinet, but also to adorn drawing room tables as souvenirs of the colony.

Three of the most notable New Zealand album manufacturers were Eric Craig, Herbert Dobbie, and Thomas Cranwell. Born in Scotland, Craig (1829–1923) arrived in New Zealand in 1852, and was a collector, publisher, and dealer of natural history who opened a curiosity shop in Princes Street, Auckland, in the 1870s. Advertised as 'the best place in all the Australasian colonies for shells, ferns, & curios', his depot

sold Māori and Pacific Island artefacts as well as ferns.¹⁸ Located near the Auckland Museum building and Queen Street booksellers, who carried sets of specimens and fern albums, it was part of an Auckland tourist route dedicated to New Zealand collectables.¹⁹ Enlisting various local suppliers to supplement his collections, Craig sold ferns mounted in sets from 12 to 152 varieties, in albums with mottled kauri wood covers, boxes, or on cardboard, as well as packets of fern 'seeds' and live plants in Wardian cases intended for an export market.²⁰ In a catalogue published in Birmingham featuring 140 New Zealand varieties for sale, he offered to exchange New Zealand ferns for foreign species, which he then sold in boxes with 'up to 300 varieties'.²¹

Craig also published two editions of an album with cyanotype illustrations of ferns that were partial facsimiles of an earlier volume, *New Zealand Ferns: 148 Varieties Illustrated* (1880), by Herbert Boucher Dobbie (1852–1940).²² A fern enthusiast from Middlesex, Dobbie arrived in Auckland in 1875 and was bewitched by the number of local varieties, describing the Waitakare Ranges as a fern fairyland and later constructing a fernery at his home, Ruatotara.²³ Composed of 104 plates of ferns inscribed with their names and localities produced through the cyanotype process, which created white silhouettes on a blue background, Dobbie's album honed in on the decorative potential of the indexical value of the ferns at the expense of their scientific usefulness, omitting details of venation and fructification.²⁴ Reminiscent of Anna Atkins's *Cyanotypes of British and Foreign Flowering Plants and Ferns* (1854), his blue books focus on the sheer surface value of the fern, rendered in mechanically precise detail, fetishising its essential form.²⁵

The decorative appeal of the fern was similarly exploited by Thomas Cranwell, a singing teacher from Lincolnshire, who migrated to New Zealand in 1862. By 1875 Cranwell was based in Parnell and was advertising ferns mounted on cardboard – from twelve shillings per set of twenty-four sheets – and 'handsomely bound books of ferns' as the 'best presents for England', which were available from 'the principal Booksellers'.²⁶ To distinguish his fern albums from others on the market, Cranwell collaborated with Anton Seuffert (1815–87), a cabinet-maker from Bohemia who immigrated to Auckland in 1859. Seuffert established a reputation for creating showpieces and gifts for dignitaries, made from native woods; with elaborate marquetry depicting Māori material culture and New Zealand flora and fauna, these items were exhibited and sold overseas.²⁷ He crafted inlaid wooden album covers and boxes for Cranwell's sets of ferns, favouring rare and distinctive species such as *Hymenophyllum*, or the filmy fern, and the detail of his designs suggests that he may have used dried ferns as templates.²⁸

The commercial fern work of Craig, Dobbie, Cranwell, and Seuffert was supplemented by New Zealand fern albums, gift-books, and handicrafts produced by women who drew upon the **aesthetic overlap between** amateur natural history and artistic practices to become active collectors, artists, and exhibitors. Few women, however, engaged in the New Zealand fern industry as a significant and sustained business venture. The fern work produced by **Mary Ann Armstrong** is distinctive in this regard. Capitalising on the aesthetic appeal of the New Zealand fern as a growing emblem of the colony and a Pacific grand tour souvenir, she created fern albums, pictures, greeting cards, as well as photographs and prints of scenic views and Māori culture embellished with fern collages, in addition to meticulously mounted and scientifically labelled specimens. While her male colleagues stressed their role as professional collectors and mounters, Armstrong distinguished herself as a botanic fern artist to become 'a **household word** in the Colonies'.²⁹

Mary Ann Armstrong, botanic fern artist

Mary Ann Armstrong, née Newey (1838–1910), immigrated to Victoria from **Birmingham** in January 1853 in the SS *Wandsworth*. She settled at the gold fields in Bendigo, where she married Charles Clarke Armstrong (1835–1923), a coach runner and fruiterer, also from Birmingham, in 1858 (Figure 6.2).³⁰ Relocating to New Zealand in the early 1860s with their sons, William and Charles Clarke, Jr, the Armstrongs took up residence in Dunedin, engaging in a variety of ventures, including hotel management, to support their growing family that would total thirteen children. The Christmas editions of the *Otago Daily Times* in 1866 and 1867 describe the family shop on Princes Street, decorated with ferns, evergreens, and flowers, as 'an especial object of attraction' and a 'perfect picture', suggesting Armstrong's early proclivity and skill for fern arrangement.³¹

To supplement the family income, Armstrong began to sell collections of pressed New Zealand ferns 'For Book, Post or otherwise', with 'Choice collections already arranged' from the family home in Dowling Street in the early 1870s.³² These early collections include sets of eight dried ferns mounted on cardboard, scientifically labelled by hand and arranged in the florilegia tradition into bouquets anchored with roundels of mosses or lycopods, which evoked a subtle sense of landscape – as visible in her *Cyathea Dealbata* arrangement in Figure 6.1.³³ They often display Armstrong's business label, a convention of commercial fern albums of this era, stating that the enclosed specimens were 'Mounted and Botanically Named by Mrs. C. C. Armstrong, Dunedin'. In 1877 Armstrong exhibited at the Annual Camellia Show at the



6.2 Mary Ann Armstrong (1838–1910), ca. 1890
(courtesy of Richard Daffey, Melbourne).

Horticultural Hall in Victoria Street, Melbourne, where a reviewer declared her pressed ferns were 'very suitable for home presents or for the drawing room table', thus emphasising their export potential and decorative appeal, the two most common attributes of the New Zealand fern industry.³⁴

Interestingly, her prepared specimens were also praised for their self-germinating properties:

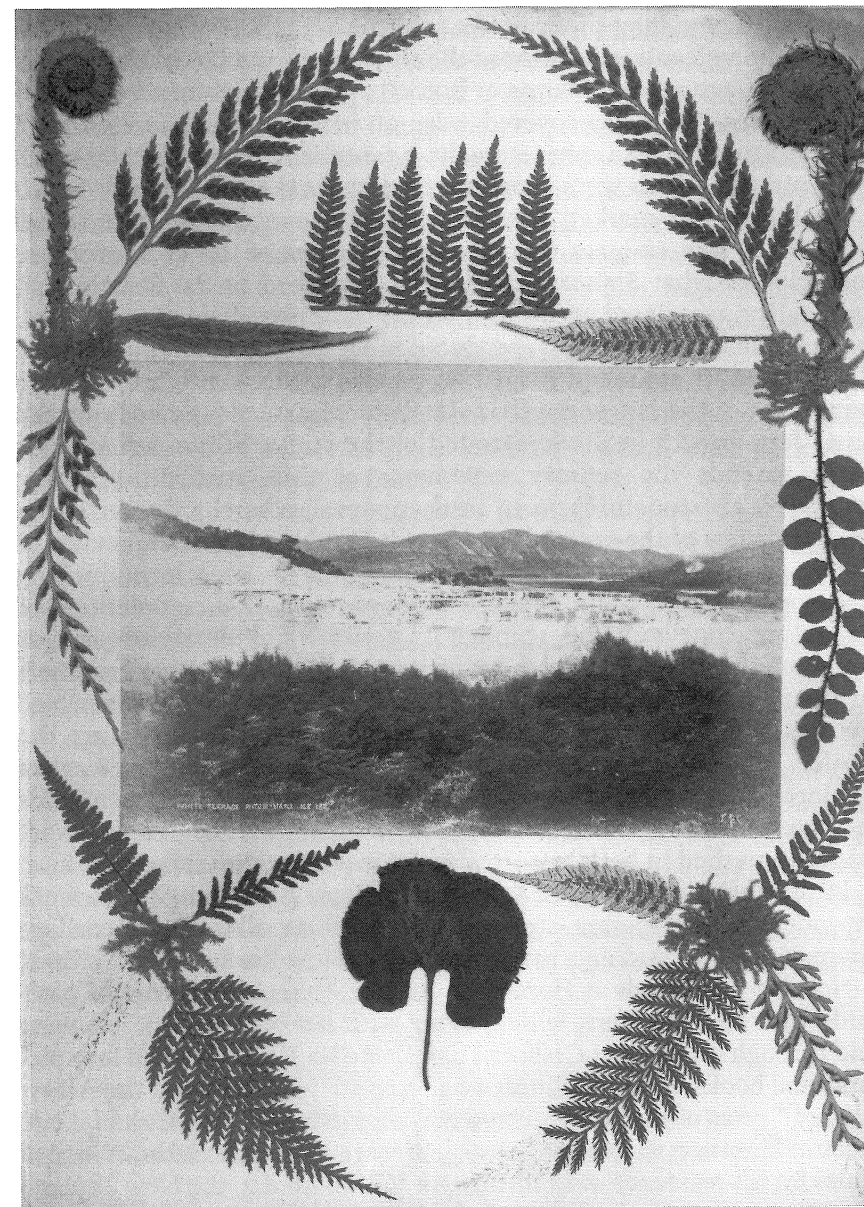
A still further advantage they possess is that being gathered at a particular season they have attached to them the sporules or seeds, and these, it is found readily germinate, so that with proper soil and suitable conditions of temperature and moisture, it is not difficult to propagate from them.³⁵

An alternative to shipping live ferns in Wardian cases – a service offered by a number of her competitors, including Craig – Armstrong's fern albums were thus promoted as miniature mobile nurseries. The preserved specimens had the added benefit of easily surviving transfer, providing the opportunity for fern enthusiasts abroad to cultivate their own exotic New Zealand ferneries.

Following her success in Melbourne, Armstrong contributed a number of fern exhibits to intercolonial and international exhibitions in order to promote her commercial work. One of her earliest exhibits, a small collection of dried New Zealand Ferns 'in natural colours', was displayed under her husband's name alongside the work of Eric Craig at the Sydney International Exhibition in 1879, where it received special commendation.³⁶ At the Melbourne International Exhibition the following year, Armstrong exhibited under her own name and was awarded a first order of merit for her 'collection of Victorian wild flowers and New Zealand ferns'.³⁷ She expanded her repertoire at the New Zealand International Exhibition, held in Christchurch in 1882, to include 'ferns and flowers framed in various devices; some arranged to represent scenery with Helen's babies playing about', as well as 'photographs of New Zealand scenery, and of Maoris, mounted with ferns'.³⁸

Her inclusion of Helen's babies refers to a comic novel of that name by the American journalist and author John Habberton, devoted to the 'innocent, crafty, angelic, impish, witching, and repulsive' boys Toddie and Budge. First published in Boston in 1876, the book inspired a series of sheet music and a play adapted by Garnet Walch which was performed at the Theatre Royal in Melbourne in 1877 and on Broadway in 1878. In referencing Helen's babies in her exhibition entry, Armstrong appealed to a colonial audience versed in popular American entertainment, effectively situating New Zealand fern fever within a context of transnational cultural networks created through an internationalising media. Similarly, her addition of New Zealand scenery and Māori suggests the emergence of local tourism fixated on an exoticised Indigeneity as a by-product of industrialisation, increasing global trade, and settler revisionism intent on colonial promotion.³⁹ Within her arrangements, ferns become referents for the Indigenous, conflating a romanticised vision of traditional Māori culture with the primeval New Zealand landscape.

An extant album of Armstrong's New Zealand ferns from the mid-1880s provides an example of what her Christchurch exhibition entry may have looked like.⁴⁰ Composed of twelve pages of mounted and named fern specimens, the album features a series of photographs of the Hot Lakes District by the New Zealand photographer Frank Arnold Coxhead (1851–ca. 1919), including views of Wairoa, the White and Pink Terraces of Rotomahana before and after the eruption of Mount Tarawera on 10 June 1886, and Ohinemutu. Following the well-publicised tour of the Duke of Edinburgh in 1870 to promote the region – recently the location of Māori resistance led by Te Kooti Arikirangi Te Turuki (ca. 1832–93) – tourists flocked to the Hot Lakes



6.3 'White Terrace Rotomahana N. Z.', albumen print and fern specimens on paper, 'New Zealand Ferns', 1886–87, Frank Arnold Coxhead and Mary Ann Armstrong (courtesy of Hans P. Kraus Jr, New York).

District.⁴¹ There they confronted a sublime landscape of steam and gas rising from volcanic ash; enjoyed the therapeutic quality of the springs at Rotorua; witnessed 'Maoris at home'; and searched for rare ferns at the Terraces, the silica-covered sides of which were encrusted with ferns, dragonflies, and other items in a tantalising form of ready-made souvenir, and which were supplemented by local handicrafts.⁴²

Exploiting this market, Armstrong's album incorporates Cox's photographs in fern collages that function as signs of the exotic 'other', entangled in what Frances Loeffler has described as the discourse of 'tropicality' associated with this district.⁴³ In a page displaying a photograph of the White Terrace, reproduced in Figure 6.3, a section of a frond sliced down its stem and turned on its side forms a miniature forest, a fragment of the landscape that stands for the whole, embodying the dense fern growth in the foreground of the scene. While Armstrong's frame extends the sensory experience of this tropical hot-spring country, it also functions on an aesthetic level, whereby the persistent romantic view of the antipodean forest is combined with the revival of Gothic architecture and design.

Associated with ruins, the fern was seen as both a complement to crumbling stonework and, through its delicate complexity of form, as a metaphorical Gothic ornament in its own right.⁴⁴ Placing emphasis on their formal qualities of line and colour, Armstrong transformed her pressed ferns from botanical specimens into artistic mediums, the crosiers of which resemble scrollwork, while the central fronds evoke a pointed arch. Embellishing the remains of Rotomahana, she moulds the fern into an alternative cultural landmark of the New Zealand landscape, enmeshed in both historical and contemporary aesthetic values.

Increasingly ambitious in scope and design, Armstrong's fern work expanded to incorporate stationery as well as albums and collage arrangements, including a set entitled 'The New Zealand Native Fern, A Novelty for Friends at Home and Abroad'.⁴⁵ She also produced postcards with fern transfers, which, along with her other fern work, were sold through retailers in Gisborne and Dunedin.⁴⁶ Her 'framed fern pictures and books of ferns mounted and named' were awarded the Albert Edward Prince of Wales Executive President Medal at the Colonial and Indian Exhibition in London, 1886, and were presented to the Prince of Wales for his residence at Sandringham.⁴⁷ Exhibited in the New Zealand Court, which featured a fernery designed to resemble a 'semi-realisation of a New Zealand fern gully', Armstrong's entry transformed this large-scale installation into a portable distillation of the colony, an emblematic ornament for the imperial drawing room par excellence.⁴⁸

By 1888 Armstrong had relocated to Melbourne, where she was committed to continuing her fern work on a larger scale. In addition

to exhibiting pressed fern collections at the Melbourne Centennial Exhibition of 1888 – which were awarded a bronze medal and a first order of merit – Armstrong also had a stand at which she and one of her daughters demonstrated the process of preserving ferns.⁴⁹ Her son, Charles Clarke, Jr, who had remained in Dunedin as a scenic photographer and fern artist specialising in artificial fern work, was also engaged in collecting and exporting New Zealand ferns from Gisborne to Victoria where, according to an 1889 advertisement in the *Poverty Bay Herald*, they found a 'ready market'.⁵⁰ The imports included dried specimens and 'fern pictures', and were sold by various auction houses in Sydney and Melbourne. Addressed to amateurs, gardeners, nurserymen, florists, and others, auction advertisements emphasised the choice variety of these specimens – including the popular *Todea superba*, known as 'Prince of Wales feathers' – which were 'packed for transmission (if required) to Europe'.⁵¹

With a steady stream of specimens flowing in from New Zealand, Armstrong embarked upon a new commercial project involving the production of a set of albums on the ferns of Australasia which, in addition to pressed specimens, included a letterpress introduction. Together with Jeremiah Twomey, a Melbourne-based journalist and publisher of the *Farmer & Grazier* (and Armstrong's future son-in-law), she established the New Zealand Fern Company to promote and sell the series. Begun in Melbourne in 1889, the *SPFA* in scope and scale represents both the culmination of Armstrong's career and that of the nineteenth-century New Zealand fern industry. Combining the display tactics of the fernery with the political picturesque rhetoric of the late nineteenth-century atlas in a gift-book unlike any other fern album on the market, it was distinguished by an international style and was marketed to a cosmopolitan audience, presenting New Zealand's resources and industry, history, and culture, cloaked under the mantle of a romantic botanical tourism.

The South Pacific Fern Album

The album was introduced in 1889 in an article from the Melbourne *Argus* that was reprinted in several colonial newspapers:

A project which deserves encouragement is the gathering of the different varieties of ferns of Australasia and New Zealand in a systematic manner in order to place interesting collections upon the English and American, as well as the Australian, markets. The work has been taken in hand by the New Zealand Fern Company, who have secured the services of Mrs C. C. Armstrong, formerly of Dunedin, for the preparation and arrangement of samples, and also a staff of fern-gatherers, who are at present

in Auckland, New Zealand, where there are extensive fern districts ... The company intend to devote their attention principally to the issue of the 'South Pacific Fern Album', which, in addition to a complete collection of ferns, will contain descriptions of the ferns, and the localities in which they are found, as well as illustrations by means of the photolithographical process.⁵²

Time-intensive and laborious, the creation of the *SPFA* was a mammoth project that 'entailed much expense and trouble', according to Twomey in the introduction.⁵³ Its full title, *The South Pacific Fern Album: New Zealand Section*, suggests a series of albums devoted to various Australasian regions; however, there is no evidence that other editions were produced. A notice in the *Launceston Examiner* from 1890 indicates that 100 copies were prepared, yet by 1893 an advertisement in the *Maitland Mercury* reveals that the album was selling in a limited edition of thirty copies by the London publishers Sampson, Low, Marston & Co., priced at the expensive sum of three guineas.⁵⁴

Composed of eighteen to twenty plates of mounted ferns accompanied by printed labels and often flanked by decorative unnamed fronds, the album would have required the collection of an immense number of specimens to produce the 100 copies proposed in the *Examiner*. Led by Charles Clarke, Jr, into the 'remotest parts of the interior' of the North Island from a base at Poverty Bay on the east coast, the fern gathering was declared 'the most arduous portion of the undertaking'.⁵⁵ Once gathered, the specimens were prepared onsite by a young Māori woman, whose duty it was 'to attend to the drying of the ferns when collected in the cottage'.⁵⁶ They were then shipped to Melbourne for arrangement by Armstrong, whose reputation for fern work was marketed as the strongest selling point for the album.

George Thomson, author of *The Ferns and Fern Allies of New Zealand*, published in 1882, is quoted in the introduction of the *SPFA* as praising Armstrong's remote arrangement of the specimens, to assuage any fears regarding their quality or freshness:

I have seen specimens of her work which would only require the dew upon the fronds to convince one that they had just been gathered from their native haunts though they were at the time thousands of miles away from where they had been gathered.⁵⁷

Samples of these arrangements, along with fern-decorated Christmas cards by Armstrong, were displayed at Twomey's offices at Phoenix Chambers, 11 Market Street, Melbourne, to advertise the album, the title page of which featured reproductions of her medals awarded for fern work.

Beyond the scale of its production, the *SPFA* was distinguished from other colonial commercial fern albums by its illustrated letterpress introduction that was divided into two sections. Part I includes an overview of the fern, a scenic tour of fern localities in New Zealand, the economic and medicinal uses of ferns, and their role in traditional Māori culture, while Part II is devoted to the description and distribution of each genus and species. Its expansive programme, composed of text, images, and specimens, demonstrates a familiarity with the exhibitions frequented by Armstrong that were geared to endorse colonial production and progress, culture and scenery. Such exhibitions, as Peter Hoffenberg has argued, were agents of the 'new imperialism' that evolved in the late nineteenth century and were instrumental in propagating a shared cultural British heritage as well as emerging nationalisms through propagandistic displays.⁵⁸

In its construction of a promotional, picturesque vision of New Zealand, the *SPFA* also resembles the illustrated colonial atlases produced around the time of the Australian Centenary in 1888. This is exemplified in the *Picturesque Atlas of Australasia* (1886–88), featuring the New School of wood engraving imported from America, which combined artistic and technical innovation to create a dynamic scrapbook of imagery engaged in assembling a nationalist iconography for an outward-looking colonial society.⁵⁹ The *Picturesque Atlas* provided a likely source of inspiration for the *SPFA*, which was published in its wake and targeted a similarly international audience, with extant copies held in public and private collections in Australia, New Zealand, the United Kingdom, and North America.

Intended more 'for those who admire the beauty of nature's productions than for those skilled in botany', the *SPFA*'s introduction takes the form of a perambulating picturesque tour, following the route of 'the tourist – whose path would generally be that of the botanist'.⁶⁰ Highlighting the peculiar natural wonders of New Zealand, which is described alternately as a 'Garden of Ferns' and a 'Wonderland of the South', the introduction jumps from the Bay of Islands to the Hauraki Gulf, the Hot Lakes District, and Poverty Bay – fern localities 'associated with some historical or romantic incident', which according to Twomey, 'adds to the pleasure of passing through them'.⁶¹ Expounding upon the mystery, primeval nature, tropical lushness, and proliferation of the fern in verdant valleys, mountain gorges, river banks, and dark recesses, it proclaims the fern as emblematic of New Zealand, describing the colony as 'the land of the Maori and the Mōa, and may we say of the fern'.⁶²

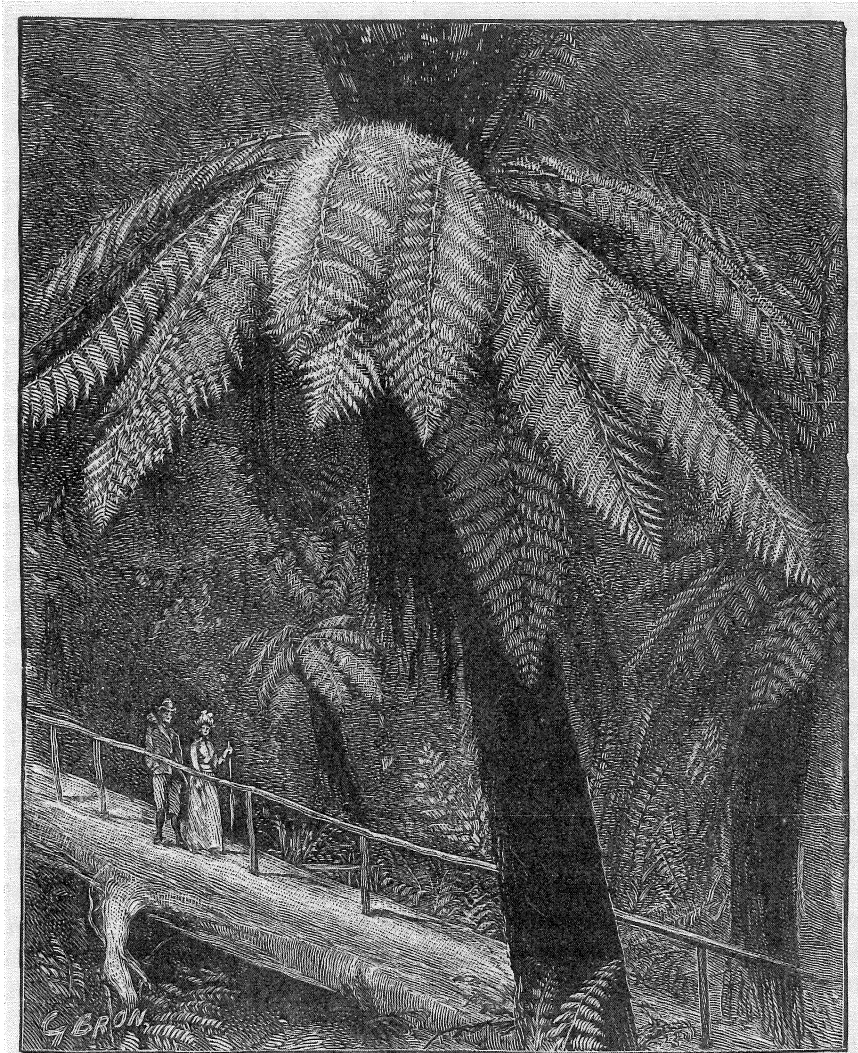
As in Armstrong's earlier photographic album of the Hot Lakes District, the fern and Māori are conflated in a discourse of exotic

otherness that overshadows the significant historic and symbolic role of the fern in traditional Māori culture. While the *SPFA* anecdotally addresses the Māori culinary, medicinal, and mythological significance of the fern, it focuses its attention on a sensationalised aspect of contact history: a relic from the 'Te Kooti Massacre' at Poverty Bay in 1868 that was discovered on one of the New Zealand Fern Company's fern-gathering expeditions.⁶³ Found embedded in a tree branch by Charles Clarke, Jr, while he was erecting a trig station on the heights of Nagatapu, a stirrup-iron – attributed to a member of Te Kooti's entourage, who was supposedly shot in the act of repairing it – was reported in the local press as an evocative souvenir of the New Zealand Wars.⁶⁴ It was later exhibited in Twomey's Melbourne office as a curiosity and an advertisement for the *SPFA*, symbolising the New Zealand Fern Company's penetration of the secluded, exotic bush.⁶⁵

The image of an untouched wilderness dominates the pictorial programme of the *SPFA*, which includes engravings of ferns and exotic scenery. Some of these may be based on photographs taken by Charles Clarke, Jr, while others are by Melbourne illustrators Charles Turner and George Treeby, who worked under the pseudonym of G. Bron, suggesting that Twomey solicited contributions from local artists.⁶⁶ A few of these illustrations appear in contemporary colonial atlases, including a cockatoo vignette by Turner from *The New Atlas of Australia* (1886) and a view of a native climbing a giant tree fern, which is similar to an engraving in the *Picturesque Atlas of Australasia*.⁶⁷ The *SPFA* not only borrowed illustrations but also the illustrative style of montage that distinguished these atlases. Integrated with the letterpress, its composite imagery showcased both the aesthetic worldliness of colonial graphic design and the technological sophistication of the late nineteenth-century Australian printing industry.⁶⁸

Appealing to a modern eye conditioned to process spectacle through a fragmented and multiple focus, montage was also an intimate vehicle that personally appealed to the viewer, drawing upon a culture of collecting that was widely disseminated through album-making practices. Throughout the introduction of the *SPFA*, montage functions as a visual accompaniment to the picturesque tour, enveloping the New Zealand fern and, by extension, the antipodean landscape in a constructive narrative based on the synthesis of image, emblem, and text.⁶⁹ This composite layout is revealed in a page devoted to the 'primeval forests of Australasia': Turner's vignette of cockatoos borders a column of text resting above a photolithograph by Treeby, depicting the giant tree fern, *Dicksonia billardieri* (Figure 6.4).⁷⁰

Thrusting out of the foreground on a diagonal, its colossal trunk bisects and flattens the scene, reflecting the influence of Japanese prints

GIANT TREE FERN (*Dicksonia billardieri*).

(FROM AN ORIGINAL PHOTO.)

6.4 'Giant Tree Fern (*Dicksonia billardieri*)', engraving, *South Pacific Fern Album*, ca. 1889, George Treeby (State Library of Victoria, 587.3 T93).

on the Aesthetic Movement, while dwarfing a fashionably attired touring couple on a rustic wooden bridge similar to those constructed in contemporary ferneries. Indeed, Treeby's illustration is reminiscent of the scenes of urban leisure that dominated colonial atlas imagery, subscribing – as Erika Esau has suggested – to an 'iconography of cosmopolitanism' employed in contemporary American illustration and in European Impressionist art filtered through magazine reproductions.⁷¹ Treeby's tourists encounter a forest cordoned off and framed, aestheticised through picturesque discourse and preserved through photography, much as the reader encountered the album page as a curated space that strove to present a productive vision of the colonies blending together art, science, culture, and technology in a manner reflective of contemporary exhibition design.

A number of copies of the *SPFA* also contain two hand-coloured lithographs of picturesque views by C. Troedel & Co., adorned with artistically arranged pressed fronds similar to the descriptions of decorated Christmas cards available for purchase from Twomey's office.⁷² Reminiscent of the scenic photographs from the commercial views trade employed in Armstrong's earlier album of New Zealand ferns, these lithographs represent both an exotic wilderness and a domesticated landscape, displaying alternately a dense forest scene untouched by human presence, and a solitary traveller journeying along a rustic bush road. As in Armstrong's previous collage compositions, the ferny frames generate a multifaceted sense of vision that embraces the particular and the general, in an aesthetic assemblage intended to evoke an antipodean fern land complicit with the introduction's overarching narrative of a Pacific wonderland.

Armstrong continued to produce fern work on a reduced scale in Melbourne after the *SPFA*, compiling an album entitled *Ferns of Australasia*, ca. 1900. This item, held in the State Library of Victoria, includes a large frond of *Cyathea dealbata*, mounted to showcase its silver underside (Figure 6.1).⁷³ While the majority of specimens in this album, as in the *SPFA*, are decoratively arranged two or three to a page, the silver tree fern, due to its size and striking colour, is displayed in isolation as an evocative icon of the New Zealand landscape. Described in the *SPFA* as 'the well-known and much-admired "Silver Tree Fern" of the settlers', it emerged as an outward-looking nationalist symbol and industrial trademark in the late nineteenth century.⁷⁴ It drew promotional power from its connectedness to Indigenous culture and nature as one of the few fern species that was widely known by its Māori name of *Ponga*, which resonated with a romanticised, pristine wilderness. Infused with a political picturesque engaged in what Loeffler has described as 'legitimizing the settler presence and inscribing its status

as an indigenized community, existing in harmony with the land', the *SPFA* ultimately fetishises the indigenous New Zealand landscape, circulating preserved ferns through international networks as an emblem of modern settler culture and progress.⁷⁵

The paradise of the fern?

In the *SPFA*, Twomey decrees New Zealand 'the paradise of the fern', claiming, '... there is not a portion of the colony, from end to end, in which these lovely plants may not be found in more or less profusion'.⁷⁶ However, by the time the album was produced in the late 1880s and early 1890s, the New Zealand landscape was undergoing a drastic industrial transformation through agriculture, forestry, and mining. This shift is acknowledged in the *SPFA*'s introduction, which laments the surface of the land 'torn and hacked by the pioneer's axe, and desecrated by the ruthless steam engine', while admitting that 'the face of the country is rapidly changing, and its wealth of flower and foliage is giving way to the more prosaic paddock and farm land'.⁷⁷ Besides the environmental impact of agricultural and industrial progress, fern fever also took its toll. The *SPFA* reveals that in Auckland, local varieties were 'greatly utilised by the residents of the city in rockeries and grottoes'.⁷⁸ Through their overuse as private and civic decorations, the ferns growing around Dunedin were depleted by 1915 according to a report by George Thomson, who became a founding member of the Dunedin and Suburban Reserves Conservation Society.⁷⁹

New Zealand defended its title of 'Land of the Ferns' through increasingly spectacular displays geared to a global audience.⁸⁰ This was epitomised in the fernery at the New Zealand International Exhibition of Arts and Industries, held in Christchurch from 1906 to 1907. In this display, hundreds of native ferns, mosses, and lycopods were featured around a central pool crossed by a bridge constructed from tree fern trunks, reminiscent of Treeby's rustic overpass in his touristic image of a primeval forest in the *SPFA*.⁸¹ Popular with the exhibition's nearly two million visitors, the fernery transformed the South Island into a Pacific wonderland that belied the ecological effects of burgeoning industry.

Increasingly absent from the local landscape, New Zealand ferns were enshrined in ferneries and exhibitions, herbaria and albums, where they functioned just as much as odes to industry and economy as they did to aesthetic science.⁸² In this chapter, I have argued that colonial commercial fern albums produced from the 1870s to the 1890s represented a significant means of botanical exchange that enacted a reversal of ecological imperialism.⁸³ Shaped by trade, exhibition, and

design, the New Zealand fern industry was a global phenomenon in which fern specimens, live and preserved, criss-crossed the empire and beyond as vegetal emissaries of the Pacific's wonderland, a primeval and exotic landscape turned modern tourist attraction. New Zealand fern albums played a crucial role – not only in feeding this transnational craze, through their intimate and accessible format that evoked a condensed form of spectacle – but also in demonstrating the cosmopolitanism of late colonial visual culture.

Defined by its international style and outlook, the *SPFA* represents perhaps the most sophisticated fern gift album produced in the colonies at the height of the nineteenth-century New Zealand fern industry. The album brought the romantic discourses of colonial tourism and nationalism into the home, where they could be processed on an intimate level. Responding to the robust export trade of New Zealand ferns, which transformed the colony into 'the world's fernery', the *SPFA* functioned as a combined herbarium, nursery, and virtual tour of specimens and scenic views that hinged upon sensory experience. Embracing the **fluid** aesthetic currency of the fern in late nineteenth-century visual culture, the *SPFA* ultimately combined contemporary exhibition strategy with cosmopolitan illustrative design, to present New Zealand not as an isolated Pacific wonderland, but as a **'Greater Britain'** shaped by international industrial and cultural networks, reinforcing its place not only within the empire but also on the world's stage.⁸⁴

Notes

- 1 Mary Ann Armstrong and Jeremiah Twomey, *The South Pacific Fern Album* (Melbourne: J. Twomey, ca. 1889), p. 14.
- 2 Frances Loeffler, 'Pteridomania: A Visual History of the Fern in New Zealand', *MA thesis*, Victoria University of Wellington, 2006, p. 86.
- 3 Robert Dixon, *Photography, Early Cinema and Colonial Modernity: Frank Hurley's Synchronized Lecture Entertainments* (London and New York: Anthem Press, 2012), p. 214.
- 4 Dixon, *Photography*, p. xvii; Erika Esau, *Images of the Pacific Rim: Australia and California 1850–1935* (Sydney: Power Publications, 2010), p. 17.
- 5 Armstrong and Twomey, *The South Pacific Fern Album*, p. 15.
- 6 Charles Kingsley, *Glaucus; or, The Wonders of the Shore* (London: Macmillan & Co., 1855), p. 4.
- 7 Sarah Whittingham, *Fern Fever: The Story of Pteridomania* (London: Frances Lincoln, 2012), pp. 71–2.
- 8 Tim Bonyhady, *The Colonial Earth* (Victoria: Melbourne University Press, 2000), pp. 104–7.
- 9 Loeffler, 'Pteridomania', p. 14; Julia Horne, *The Pursuit of Wonder: How Australia's Landscape was Explored, Nature Discovered, and Tourism Unleashed* (Carlton, Victoria: Miegunyah Press, 2005), p. 265.
- 10 Paul Star, 'New Zealand's biota barons: Ecological transformation in colonial New Zealand', *Environment and Nature in New Zealand*, 6:2 (2011), 3.
- 11 Whittingham, *Fern Fever*, p. 103.

- 12 'News of the week', *Otago Witness* (4 May 1878), p. 15.
- 13 Star, 'Biota barons', 6.
- 14 *Colonial and Indian Exhibition, Catalogue of New Zealand Exhibits* (London: William Clowes & Sons, 1886), p. 107; Whittingham, *Fern Fever*, p. 103.
- 15 Whittingham, *Fern Fever*, p. 159; 'The New Zealand and South Seas Exhibition. The closing ceremony. A review', *Otago Witness* (24 April 1890), p. 18.
- 16 *Colonial and Indian Exhibition*, p. xvi.
- 17 Amira J. Henare, *Anthropology and Imperial Exchange* (Cambridge: Cambridge University Press, 2005), p. 189.
- 18 Advertisement of 1891, reproduced in Jeanne Goulding, 'Early Publications and Exhibits of New Zealand Ferns and the Work of Eric Craig', in *Records of the Auckland Institute and Museum*, 14 (1977), p. 69.
- 19 Loeffler, 'Pteridomania', pp. 69–70.
- 20 Goulding, 'Early Publications', p. 69. A packet of Craig's fern 'seeds' is in the collection of Tim McCormick, Sydney.
- 21 Eric Craig, *Catalogue of Ferns and Lycopodiums in the Herbarium of Eric Craig, Princes Street, Auckland* (Birmingham: Chas. Stocker, Summer Row, ca. 1890). Goulding demonstrates that this catalogue had a wide distribution to overseas herbaria and Craig's specimens can still be found in a number of American collections. See Goulding, 'Early Publications', p. 75.
- 22 Eric Craig, *New Zealand Ferns: 167 Varieties Illustrated* (ca. 1888), and *New Zealand Ferns: 172 Varieties Illustrated* (ca. 1892).
- 23 Herbert Boucher Dobbie, *New Zealand Ferns: 148 Varieties Illustrated* (Auckland, 1880), p. 1. Collection of Hans P. Kraus Jr, New York; Whittingham, *Fern Fever*, p. 159.
- 24 Whittingham, *Fern Fever*, p. 83.
- 25 Loeffler, 'Pteridomania', p. 50.
- 26 Cranwell's advertisement appears in *Ferns Which Grow in New Zealand and the Adjacent Islands, Plainly Described by H. E. S. L.* (Auckland: Reed & Brett, 1875).
- 27 *Colonial and Indian Exhibition*, p. 57.
- 28 Loeffler, 'Pteridomania', pp. 64–5.
- 29 'Special advertisements', *Poverty Bay Herald* (3 December 1885), p. 2. A label from an album in the State Library of Victoria, entitled *Ferns of Australasia*, ca. 1900, designates her as a 'botanic fern artist'.
- 30 I am extremely indebted to Richard Daffey, great-grandson of Mary Ann Armstrong, for sharing with me his extensive family research on the Armstrongs. For more biographical information on Mary Ann, see Molly Duggins, 'Mrs. C. C. Armstrong', *Design and Art Australia Online*, www.dao.org.au/bio/mary-ann-armstrong/, accessed 12 August 2013.
- 31 'Inveniam viam aut faciam', *Otago Daily Times* (25 December 1866), p. 4; 'Inveniam viam aut faciam', *Otago Daily Times* (25 December 1867), p. 4.
- 32 'Ferns', *Otago Daily Times* (18 October 1873), p. 3.
- 33 See, for instance, Mrs. C. C. Armstrong, 'New Zealand Ferns', (Dunedin, ca. 1885), New York Public Library, Stuart 13837.
- 34 'The Annual Camellia Show', *Argus* (24 August 1877), p. 7.
- 35 'The Argus. Published daily', *Argus* (24 September 1877), p. 5.
- 36 *Sydney International Exhibition: Official Record* (Sydney: Thomas Richards, Government Printer, 1881), p. 1008.
- 37 'Australian news', *Wanganui Herald* (21 March 1881), p. 2.
- 38 M. Mosley, *New Zealand International Exhibition, 1882: Record, Containing Retrospect of the Colony, Sketch of Exhibitions, Complete Description of Exhibits* (Christchurch: James Caygill, 1882), p. lxx.
- 39 Loeffler, 'Pteridomania', p. 105.
- 40 Mary Ann Armstrong, 'New Zealand Ferns', 1886–87, collection of Hans P. Kraus, Jr, New York.
- 41 Henare, *Anthropology and Imperial Exchange*, p. 190.
- 42 Armstrong and Twomey, *The South Pacific Fern Album*, pp. 25–6.

- 43 Loeffler, 'Pteridomania', p. 8.
- 44 David Elliston Allen, *The Victorian Fern Craze: A History of Pteridomania* (London: Hutchinson, 1969), p. 20.
- 45 The Hocken Library, University of Otago, Dunedin, holds a set of Armstrong's stationery, UVPF A.
- 46 Betty Malone, 'Mary Ann: Personal Recollections', collection of Richard Daffey. Malone was the granddaughter of Armstrong.
- 47 *Colonial and Indian Exhibition*, p. 59; Whittingham, *Fern Fever*, p. 85. Advertisements for her fern work suggest that she had also sent an exhibit to the *Exposition Universelle* in Paris in 1878. 'Ferns! ferns! ferns!', *Poverty Bay Herald* [29 March 1884], p. 3.
- 48 Whittingham, *Fern Fever*, p. 32.
- 49 *Official Record of the Centennial International Exhibition, Melbourne, 1888-1889* (Melbourne: Sands & McDougall, 1890), p. 1061. This demonstration was not without mishap. The *Sydney Morning Herald* reports that a small fire was started at the stall by Miss Armstrong, who accidentally lit a box of safety matches. 'Fire at the Melbourne Exhibition', *Sydney Morning Herald* (26 November 1888), p. 7.
- 50 *Poverty Bay Herald* (1 October 1889), p. 2. The advertisement gives a sense of the value of these shipments: 'During the last quarter Mr Armstrong shipped ferns hence to Australia valued at £110.'
- 51 'Large variety of New Zealand ferns', *Sydney Morning Herald* (16 July 1885), p. 1.
- 52 'The preparation of ferns', *Argus* (23 October 1889), p. 11.
- 53 Armstrong and Twomey, *The South Pacific Fern Album*, p. 9.
- 54 'Current topics', *Launceston Examiner* (12 July 1890), p. 4; *Maitland Mercury & Hunter River General Advertiser* (14 October 1893), p. 4.
- 55 Armstrong and Twomey, *The South Pacific Fern Album*, p. 13.
- 56 Armstrong and Twomey, *The South Pacific Fern Album*, p. 13.
- 57 Armstrong and Twomey, *The South Pacific Fern Album*, p. 9.
- 58 Peter Hoffenberg, *An Empire on Display: English, Indian, and Australian Exhibitions from the Crystal Palace to the Great War* (Berkeley: University of California Press, 2001), pp. 3-4.
- 59 Tony Hughes-d'Aeth, *Paper Nation: Picturesque Atlas of Australasia, 1886-1888* (Melbourne: Melbourne University Press, 2001), p. 224.
- 60 Armstrong and Twomey, *The South Pacific Fern Album*, pp. 1, 16.
- 61 Armstrong and Twomey, *The South Pacific Fern Album*, pp. 16, 21-6.
- 62 Armstrong and Twomey, *The South Pacific Fern Album*, p. 15.
- 63 Armstrong and Twomey, *The South Pacific Fern Album*, pp. 16-17.
- 64 'Published every evening', *Poverty Bay Herald* (20 October 1885), p. 2.
- 65 Undated *Herald* newspaper clipping from the scrapbook of Jeremiah Twomey, collection of Richard Daffey.
- 66 The *Examiner* reveals that commercial photographs were also sent to Twomey for consideration. 'Current Topics', p. 4.
- 67 *The New Atlas of Australia* (Sydney: John Sands, 1886), p. 42; Andrew Garran, ed., *Picturesque Atlas of Australasia* (Sydney: Picturesque Atlas Publishing Co., 1886), p. 305.
- 68 Esau, *Images of the Pacific Rim*, p. 123.
- 69 Hughes-d'Aeth, *Paper Nation*, pp. 216-18.
- 70 Armstrong and Twomey, *The South Pacific Fern Album*, 9.
- 71 Esau, *Images of the Pacific Rim*, pp. 124, 126.
- 72 Illustrated in Robyn Stacey and Ashley Hay, *Herbarium* (Cambridge: Cambridge University Press, 2004), p. 144.
- 73 Despite her prolific collection and production over a twenty-year period, there is no evidence that she discovered any new species. However, she did contribute information on existing species, including the *Phylloglossum drummondii*, which she discovered in the Canterbury districts. Armstrong and Twomey, *The South Pacific Fern Album*, p. 7. Armstrong passed away on 2 July 1910 and is buried in Melbourne General Cemetery beneath a headstone inscribed with ferns.

- 74 Armstrong and Twomey, *The South Pacific Fern Album*, p. 3.
- 75 Loeffler, 'Pteridomania', p. 105.
- 76 Armstrong and Twomey, *The South Pacific Fern Album*, pp. 14, 20.
- 77 Armstrong and Twomey, *The South Pacific Fern Album*, p. 15.
- 78 Armstrong and Twomey, *The South Pacific Fern Album*, p. 16.
- 79 Loeffler, 'Pteridomania', p. 99.
- 80 Henry Field, *Ferns of New Zealand and Its Immediate Dependencies, with Directions for Their Collection and Cultivation* (London: Griffith, Farren, Ockden, & Welsh, 1890), p. 1.
- 81 J. Cowan, *Official Record of the New Zealand International Exhibition of Arts and Industries Held at Christchurch, 1906-1907: A Descriptive and Historical Account* (Wellington: Government Printer, 1910), pp. 165-8; Whittingham, *Fern Fever*, pp. 205-6.
- 82 Loeffler, 'Pteridomania', p. 83; James Belich, *Paradise Reforged: A History of the New Zealanders from the 1880s to the Year 2000* (Auckland: Allen Lane & Penguin, 2001), pp. 29-30.
- 83 Star, 'Biota Barons', p. 12.
- 84 Armstrong and Twomey, *The South Pacific Fern Album*, p. 16.