

Women naturalists in Tūhura Otago Museum, Dunedin

ROSI CRANE

Abstract

Historical studies on naturalists who contributed their expertise to Tūhura Otago Museum, are few and invariably deal with men. The roles that women played in the formation of its collections in the late-nineteenth and early-twentieth centuries are uncovered. The paucity of information in the handwritten museum registers and archive is supplemented to a small extent by newsprint and annual reports. Women's expertise included field collecting and academic studies. Donations arose because of changing family circumstances or through friendships with the male curators. A few businesswomen also featured. The career of Lily Daff, the museum's first female appointment, is described as she rose to become chief designer.

Introduction

All too often the contributions of women in the museum have been written out of histories. This is particularly true for New Zealand museum history, where the number of contributing historians is small. As others have found in other parts of the world, there is a dearth of information about museum women.¹ Discovering women's separate roles and interactions with the museum is complex. Uncovering a husband's and wife's individual contribution to a collection is hard, if not impossible, and their joint names written in the official registers of acquisitions may not reflect what happened in life. Societal conventions meant sometimes the woman's role was entirely subsumed under the name of her husband and we can only guess the part she played. As historian Kate Hill reminds us, "Women clearly had a range of involvement in the acquisition and donation of these collections, from accidental acquisitions, to inherited material and material that belonged to their husband, to hobbies, or serious collecting."²

This pattern is repeated in Dunedin's Tūhura Otago Museum, but with subtle differences, arising from the age of the institution and the country. It is worth noting that formal European settlement of New Zealand began in the mid 1840s and the foundation of Otago Museum was part of the late-nineteenth-century worldwide boom in museum building.³ Much of the flora and fauna the settler men of science were faced with was new to them and the vast European literature on natural history was not relevant.⁴ The primary source for information on Tūhura Otago Museum women are the registers supplemented by rare mentions in annual reports. The registers were a series of heavy foolscap, leather-bound books which recorded each item accepted for the museum. Register entries written by the curator might record, "a group of", or perhaps "some", occasionally quantities were recorded for instance "35 mammals", or "500 birds from India". Entries notoriously provide scanty information with their simple lists recorded against a name, which may, or may not, reveal gender. Further patchy details surrounding an individual can sometimes be pieced together from newspaper accounts, but only infrequently can women be unequivocally identified. This paper contributes to the scholarship on women's place in museum and scientific histories.⁵

Like other museums across the English-speaking world, the Otago Museum was dominated by male curators who drove the intellectual and pedagogical vision that shaped their museum.⁶ The Otago Museum was founded in 1863. Its first curator, Captain Frederick Wollaston Hutton (1836-1905), was a naturalist who originally worked as a geologist for the Otago Provincial Geological Survey before turning his attention to zoology. The second curator, Professor

Thomas Jeffery Parker (1850-1897), was a zoologist, as was the third, William Blaxland Benham (1860-1950); the fourth, Henry Devenish Skinner (1886-1978), was an anthropologist and field archaeologist who retired in the 1950s.⁷ The most significant woman—and the museum’s first appointment—Lily Daff (1895-1945) rose to become the chief designer and her role is discussed later.⁸

Women collectors

British nineteenth-century women, particularly leisured middle-class women, pursued natural history interests with a paintbrush in hand, or, if not adept at drawing, stuck pressed flowers, or ferns into albums, or arranged shells. Some of these endeavours were mere pastimes, some developed into informed passions, where the women became experts.

The first woman collector clearly identified in the registers was Miss Solomon (*fl.* 1869) from North East Valley, Dunedin. Just five months after the Otago Museum opened in September 1868, she presented a collection of 30 pressed seaweeds to the museum. She followed this gift in March 1869 with two vertebrate skulls, a fish, and a mammal. She had collected them all in Australia but by December of the same year her interest in natural history had moved across the Tasman and she gave a lizard caught in North East Valley in Dunedin. These three entries in the earliest register record the total of her relationship to the Museum.⁹ None of the specimens has survived. Her identity remains obscure, but she was likely part of a large family. By 1894, Isaac Solomon lived with ten of his children in North East Valley with his second wife.¹⁰ Family income depended on rents from properties in Melbourne and Dunedin, but this was sporadic, and from time to time Isaac found financial commitments difficult.¹¹ A case against him for failing to support his grandson was dismissed because the judge thought he had an “impossible task before him”.¹² Money was tight. It is easy to surmise that Miss Solomon sold rather than donated her collection to the museum but there are no surviving financial records from these early days of the museum to corroborate the suggestion. Seen in this light, far from blazing a heroic trail into the museum as part of a story of progress from oppression to liberation, Miss Solomon’s story is one of contribution to her upkeep. She had agency as it was her choice to sell the items. She not only possessed the skills to collect the seaweeds, but also enough know-how to preserve them for presentation to the museum.

Knowing, judging, and assessing what you are looking at on the beach distinguishes the practice of collecting for science from that of beachcombing for adornments. There is no doubt that Susie Shand (*fl.* 1870s), one of the younger daughters in a large Chatham Island family, knew that what she found would be useful. Her informed eye provided crustacea for Charles Chilton (1860-1929) to write up in 1907, beetles for Thomas Broun (1838-1919) to write up in 1909, starfish for Maxwell Young (*fl.* 1920s-1930s) in 1930, more crustacea, shrimps this time, for Chilton in 1915.¹³ Her collection of shells, along with others collected by men, was used for an overview study of molluscs in the Chatham Islands in 1928, but the author moaned: “Although I have thus had much available material, it is unfortunate that so little of it was fresh, the great majority of specimens being badly beach-worn.”¹⁴ Not all of her specimens ended up in the Otago Museum; some she sent to Christchurch. Denied opportunity for advanced schooling in the isolated Chatham Islands community, she developed natural history expertise and made herself an important collector. Susie Shand continued to collect specimens for the museum over three decades and in 1924 donated a large tranche of Chatham Island adzes, scrapers, and knives, as well as more natural history items including birds’ eggs.

In 1902, Otago Museum’s third curator, Benham, registered a collection of twenty-one small invertebrates collected from Waiheke Island in the Hauraki Gulf by Dr Agnes Kelly (1874-

1929). Agnes Kelly was one of a small corps of able, highly-qualified women. Born in Adelaide, South Australia, she gained scholarships and awards to study at Bedford College in London. While she was visiting Auckland over Christmas in 1901, where her father lived, the local papers took delight in extolling her academic achievements. She and Benham likely knew each other from her period at Bedford College, and he may very well have taught her. He took up the post of Assistant in Biology, and she graduated in 1896, two years before he moved to Dunedin.¹⁵ After gaining a BSc in zoology Kelly spent time in Munich, where she was one of the first women to gain a PhD.¹⁶ While in Munich she met her husband, Gheorghe Munteanu Murgoci (the anglicised name is Murgoe) a Romanian mineralogist and geologist, they married in London in 1904, and settled in Bucharest. Her trip back to New Zealand was in part to investigate the state of science education.¹⁷ It is easy to envisage she took time out for a holiday on Waiheke Island, and there made the collection of marine invertebrates she sent to Benham to study. He probably asked for her help, but no correspondence survives. Benham acknowledged her contribution in a paper published the next year, and wrote, “Dr Agnes Kelly, who collected several specimens at Waiheke, has noted that they are ‘yellowish grey’.”¹⁸ Benham kept his fieldwork to local Otago beaches, but utilised everything he could acquire for his comparative studies and was grateful to Kelly. For other specimens, he relied on those in the museum, and the “gradual accumulation of specimens from various parts of the coasts of both Islands”.¹⁹ Kelly, like Shand and Solomon, knew what to look for, but her collecting was directed by Benham’s specific research requirements. Some of Kelly’s specimens reached Copenhagen. In 1907 Benham had sent them, along with other marine worms, to his colleague, Ernst Ehlers, for a monograph on New Zealand worms that his Danish friend was writing.²⁰ Kelly’s subsequent life remained opaque to New Zealand newspaper readers, but from a brief biography written by her grandson we learn she fled to Britain Romania during the First World War, travelling with her two children through pre-revolutionary Russia.²¹

Sometimes women called on their menfolk to help them collect items: the Dunedin High School science teacher George Malcolm Thomson (1848-1933), wrote to his friend, Thomas Cheeseman (1846-1923), the museum curator in Auckland, in 1884: “My only sister who is out here on a visit and returns shortly to England, has asked me to get her a number of south sea island shells. Could you manage to get me a box full within the next month say for a couple of pounds?” An apparently straightforward request but he allowed his real feelings to show when he wrote: “Of course, it is not rare species I want so much as pretty shells such as a lady likes to stick in her drawing room and give to her friends. If possible, at [for] the money the lot might contain two or three nautilus.”²² Thomson minimised her interest by suggesting it was for decorative effect alone. Pretty shells and other natural history objects of decorative merit adorned drawing rooms and other public spaces in the home. “Late nineteenth-century interiors are recognisable by their excess of stuff, frilled draperies, busy wallpapers, and plentiful ornaments”, including shells on the mantelpiece.²³ Beyond the male-dominated network of trade in natural history items, the Thomson story also reveals familiar attitudes that kept women firmly within the domestic sphere. As historian Evelleen Richards describes it:

a minority of women, suitably educated, might become the ‘fit companions’ of men, but not their ‘competitors’. . . . they might assist their husbands – exhibit an intelligent interest in their work, illustrate or proof-read their manuscripts, even occasionally accompany them to the more popular scientific meetings. Their proper role was to be more concerned with the scientist than his science.²⁴

George Thomson’s wife, Emma, accompanied her man of science to the Otago Institute’s annual conversazione meeting held in the museum. The conversation was stimulated by, and centred on, the exhibits gathered for the evening’s entertainment.²⁵ The meeting held in May

1887 was lit by electric lights organized by George, but it was not a success. Emma confided to her diary: “I went in the evening to the *Conversazione* which unfortunately was a failure ... the electric light did not work well.”²⁶ Of the 1891 event, she wrote “went to the *Conversazione* at the Museum which we enjoyed very much – it seemed much less stiff than usual ... the rooms were nicely warmed.”²⁷ Conviviality was helped by physical warmth and the refreshments supplied by Mrs Mackenzie, the wife of the janitor.²⁸ The Otago *conversaciones* were abstemious events, unlike some in England, where considerable quantities of port, sherry, chablis, Madeira, champagne and brandy were consumed.²⁹

Marjorie Mestayer (1880-1955) began collecting shells as a teenager, and although she did not possess university qualifications, she had a long apprenticeship accompanying her biologist father. Yet she became more than just a collector as she was appointed to the Dominion Museum, Wellington, in 1919.³⁰ “For many years, Miss Mestayer has hunted shells, waded for shells, cleaned shells, classified shells, and in general, fitted herself for the post which she now occupies – that of the only woman conchological expert in the Dominion.”³¹ Her appointment was due to her expertise and because, as the newspaper reporter continued paternalistically: “Wellington could at that time produce no man who knew much more about shells than that they were curious things found on beaches.”³² Initially, her research to the Wellington Philosophical Society was read by her father, and her first paper was a joint publication with Tom Iredale (1880-1972), who acknowledged her contribution, “all the larger shells were collected by Miss Mestayer, whilst the minute forms were sorted and identified by Tom Iredale from shell-sand and seaweed-washings collected by Miss Mestayer”.³³ He put the blame for errors on himself, however.

It appears women were back to beachcombing for men to write up. But that would be to minimise Mestayer’s significant contributions to science during her thirteen years at the Dominion Museum, where she wrote 18 research papers on molluscs. She presented her research first to the Wellington Philosophical Society, followed by a nationally organised Science Congress held in Wellington in 1921.³⁴ She also gave many talks to local clubs and interest groups.³⁵

This inventory science set the pattern for Mestayer’s work, but she never achieved the fame in conchological circles that Iredale did when he settled at the Australian Museum in Sydney. Mestayer was no artist and so her scientific papers were illustrated by Miss J. K. Allan (*fl.* 1907-1932), “[they] are beautiful and accurate figures of a specimen which is just about the diameter of a threepenny piece. I wish to thank her heartily for her careful work.”³⁶ In 1907 Mestayer donated a set of shells to the Otago Museum, and although the bulk of her shells remain in Wellington at Te Papa, there is also a significant collection at the Auckland War Memorial Museum. Benham’s research interests on the taxonomic relations of marine worms (polychaets) drove Mestayer’s collecting. A small collection of marine worms remain in the museum and date from 1904-5. It is easy to surmise Benham borrowed them and simply forgot to return them to Wellington. However, one specimen of a “rare annelid” the fireworm *Chloëis inermis* that she collected from Lyall Bay, her favourite locality, was recorded in the Annual Report for 1907.³⁷ It is a deep-water species that only occasionally gets washed up on beaches, its stiff white bristles are capable of penetrating the skin to cause a painful burning sensation. Once again, it is obvious that Mestayer knew what she was looking for and how to handle the specimens. Sadly, Mestayer’s career as an employee in the Dominion Museum came to an end in 1932 in the depths of the Depression “I have been one of the retrenchment victims. Now I am trying to earn a little money by making home-made sweets”, she wrote to a colleague in

Auckland.³⁸ Mestayer bridged the gap between the world of the collector and that of the academic researcher.

Academic women

Participation by women in public affairs and museums in colonial New Zealand was possibly easier than for women in the United Kingdom, as more freedoms were allowed earlier here than in the United Kingdom. However, both the nineteenth century ‘New Woman’ and her counterpart the ‘Modern Woman’ from the early-twentieth century, had to navigate a male world. Otago’s women, in common with women across the country, slowly stepped out from the confines of the domestic sphere. That women undertook scholarly scientific research reveals just how talented and determined they were. The curators they encountered were supportive, but society at large was still suspicious of academically-inclined women. Uncovering the activities of women naturalists is relatively easy compared to the unknown visitors (women and men) who frequented the museum, because of the traces left in the published record.

Engaging with the museum, at any level, was a middle-class activity. The museum was regarded as a place of rational entertainment which could not compete with the numbers who went to the cinema or popular lectures illustrated by magic lantern shows.³⁹ It is doubtful whether any of the regular audience at the King Edward Theatre, Dunedin’s first picture theatre in South Dunedin, situated in a largely working-class area, made the trek to North Dunedin (a distance of 3.5km) to visit the museum. Nonetheless, the museum, and its social events, were recognised places where women could be seen in public with impunity, if not approval.

The case of Josephine Gordon Rich is particularly interesting: she was among a handful of women of her generation to actively pursue science.⁴⁰ She was one of only four New Zealand women to publish the results of her scientific work before 1901.⁴¹ None held positions in universities or had easy access to a laboratory, and this hampered further scientific investigation. Carrying out research work at home, in the domestic space, had its limitations. However, original research was not a high priority in the nineteenth century; in contrast to other colonial universities and colleges, New Zealand institutions focused more on producing qualified teachers.⁴² Rich’s interest in zoology focused on anatomical dissection yet she was also a competent illustrator but illustration was a by-product of her enquiries.

Outlets for intellectual engagement with science and the natural world were limited in colonial New Zealand, especially for women. In ‘ordinary meetings’ of the Otago Institute discussions and conversations took place amongst a corps of like-minded individuals proud of their collective achievements. Women were freely admitted as members of the Otago Institute, although not many took advantage, and records reveal only a patchy interest. This inclusive practice differed from that in similar societies in Britain. On the election of Rich to the Institute in 1892, the then chairman, Charles Williams Adams (1840-1918), claimed it was not “generally known, that ladies could become members, but now that the woman question was coming forward, he hoped there would be a large accession of lady members.”⁴³ The ‘woman question’ referred to emancipation and the lessening of strictures on the life of women. New Zealand’s suffrage campaign had begun in the mid-1880s, and in September 1893 after a ‘monster petition’ had been presented to Parliament earlier in the year, women won the right to vote.⁴⁴ Rich renewed her membership in 1893, but not thereafter, because she had moved away from Dunedin.

Whether Rich ever thought of herself as a ‘New Woman’ is unknown, yet she would certainly have been aware of changing attitudes, and her career, though short-lived, formed an example of such changes. Leading feminist Anna Stout (1858-1931) defined the role as she saw it: “New Women wish to have the right to be educated physically, mentally and morally, so as to be able to live their own lives and support themselves without the degrading necessity of accepting a home at some man’s pleasure.”⁴⁵ Rich may, or may not, have had the “unhomed habits and manly ambition,” as one conservative writer put it, that seemed so frightening to established patterns of domesticity.⁴⁶ She would have heard first-hand the views of Learmonth Dalrymple (1827-1906), the force behind the establishment of the Girls’ High School, in which a university education allowed women to participate fully “in the educational and domestic duties of life”.⁴⁷ Dalrymple offered a contrasting viewpoint to Anna Stout as Dalrymple disliked educated women who became “clever, restless and unfeminine”.⁴⁸ Rich was positioned somewhere on the spectrum between the two feminists. She had taken classes in zoology, biology, botany, and practical biology but without apparently gaining a degree, although early records of the University of Otago are incomplete.⁴⁹ In 1894 Rich let her membership of the Otago Institute lapse because she married zoologist William Haswell (1854-1925) and moved to Sydney. Rich’s own life was a good example of Anna Stout’s exhortations for a marriage to be an equal partnership. Once married, Rich dropped out from the life of a public intellectual and fulfilled societal expectations. Yet she supported her zoologist husband – and drew some illustrations for the textbook he and Parker (the second curator) wrote together. The book, prosaically titled *A Textbook of Zoology*, is still in print, although much altered through its seven editions.⁵⁰

Before joining the Otago Institute, and before marriage, Rich made a significant contribution to the international New Zealand & South Seas Exhibition held in Dunedin over the summer months 1889-1890. The Natural History Court comprised an evolutionary guide to animals, although some animals could not be shown because they were either too small or too large.⁵¹ Pictures and models replaced those that could not fit into glass jars or were not available as stuffed or skeletal specimens, and the opportunity for didactic explanation through display was not lost. Rich drew a set of diagrams which were later registered in the museum. Her high-level drawing skill, borne from her intellectual engagement with the messy material world of dissection and microscope examination, was superior to the leisure activities of many of her contemporaries. Not everything she worked on was published and jars containing a sheep’s stomach (OMNZ VT2805), a sturgeon (a primitive fish) (OMNZ VT2803) and a kiwi (OMNZ AV10572) survive in the museum store.

During the 1920s and 1930s opportunities for graduate women slowly opened, although the effects of the widespread economic depression made permanent jobs a rarity. The effects of a shortage of eligible men through the ravages of the great war meant the University of Otago appointed women, though as historian Ali Clarke notes, they were not good at promoting them through the ranks.⁵² In 1921 Marion Fyfe (1897-1986) was appointed an assistant lecturer in zoology. In 1927, when the assistant curator Skinner was away, the university refused to pay Fyfe an extra £25 to cover his duties.⁵³ However, they relented later in the year, but only because she gave a series of evening classes to the Workers Educational Association (WEA); these covered a range of biological topics including ‘spiders’, ‘molluscs’, ‘edible animals’ and ‘well-known pests’.⁵⁴ A second series of WEA classes helped to supplement her income in 1928, but Benham’s request to the university for her promotion to lecturer was dismissed.⁵⁵ In October that year, Fyfe read a technical zoological paper to the Otago Institute which established her credentials as a serious zoologist; it was published in the *Transactions* and illustrated with diagrams that carry no credit, but were probably drawn by Fyfe.⁵⁶ Teaching

duties took up most of her time and it took nearly twenty years for her to find time to publish on her speciality—flatworms.

In May 1939 Fyfe attended a function in honour of the retirement of Edwin Herbert Gibson (c.1872-1949), the museum taxidermist, and announced plans of her own travel to Europe. By September she was in Sweden and on her way to Berlin when war was declared so had to change her plans. News of her travels reached Dunedin in December, where she had arrived in England “after various thrilling experiences” and was now in Cambridge “for a few months prior to resuming her work at the university next March.”⁵⁷ She recounted some of her travel experiences in 1942 to the University Women’s Association after her return. She was now a lecturer rather than assistant after 18 years, but it had been a long road to promotion.

After Benham died in 1950, Fyfe undertook to complete a manuscript they had been preparing on New Zealand marine worms. She wrote in the introduction that “in spite of his ninety years, [he] was able to throw light on many problems.” However, one problem he could not solve concerned the whereabouts of specimens, and, in particular, the all-important type specimens. Type specimens are selected to serve as a reference point for the first-named of the species, they are usually kept safely in the museum and identified in the published record. She fudged the issue with an explanation that only implicitly puts Benham in a bad light: “No mention of type specimens is made in the early descriptions of new species, but the collections of worms so described are preserved in various museums.”⁵⁸ Benham had either forgotten or had taken inadequate notes of where he sent them. Fyfe’s association with the museum was casual: she attended conversations and the opening of the Fels wing in 1930. She did not collect specimens or register any, but she did reorder Benham’s worms and gave innumerable lectures.⁵⁹

Women donors through changing circumstances

A significant number of specimens and objects were donated to the museum by women who downsized to a new house, or when widowed. Changing fashions in home-decoration also led to items no longer being required by their owners as many items had been collected to follow the fashion of the prevailing colonial mores.

Middle-class women in New Zealand carried out more domestic chores than their counterparts in England, and the ‘servant problem’ was the subject of debate in the late 1890s. Domestic servants were difficult to find and of variable quality, and the numbers of women wanting that kind of employment dropped significantly, almost disappearing by the 1940s.⁶⁰ Women who ran households probably did not want to do extra dusting and cleaning required in the quintessential overstuffed Victorian house. In 1907 a columnist for the *New Zealand Tablet* advocated a set of guidelines in tasteful decoration: “too many ornaments in a drawing room make it look like a fancy bazaar or a second-hand furniture shop. Don’t have your mantelpiece overloaded with a confused mass of bric-a-brac.”⁶¹ Whether it was this general trend of making do without servants, or whether it was a trend towards simplification of home decoration or a combination of the two, regardless, it led to museum donations.

Miss Alice Annie Greenslade (d.1968), for instance, donated two cases of birds in 1935, presumably in a fit of de-cluttering from the large home in Tennyson Street up the hill from their father’s brewery business where she and her four sisters had lived. Sadly, three years later many of the birds had to be burnt as they had gone mouldy. Object care was, and still is, an ongoing battle that affects the afterlives of animals once brought into the museum. The museum has some surviving glass domes (also known as shades) and ornamental cases. But it also has

birds mounted in odd positions, with permanent cricks in their necks, stuffed so they fitted into the domes. The glass has long since disappeared, either broken accidentally or by deliberate curatorial ‘tidying up’.

In England, historian Kate Hill found urban elites had privileged access to local public museums, where they treated the leisure space as an extension of the drawing-room, with convivial meetings.⁶² How far this scenario applies to New Zealand is questionable. Urban and elite are ill-defined concepts in a Dunedin context. Beyond educated professional men, like doctors, there was a distinct, but small, ‘inner circle’ of Dunedin businessmen, and their womenfolk, who formed a tight-knit community.⁶³ This ‘inner circle’ was based on the export of wool, supply of stock and station, and shipping concerns. Colonial wealth was accumulated by the efforts of the individuals involved, meaning they had little leisure time to pursue endeavours not directly concerned with business. Secondly, occasions for public convivial meetings were infrequent. Conversaciones, which the museum organised initially under the auspices of the Otago Institute, then (from 1924) by the Friends of the Museum, were only ever annual events.

Friendships

Donations from women as the result of a personal friendship with the curators also formed a significant though uncommon practice. In 1881 a carcass of a takahe was discovered near Te Anau, in the mountains of Fiordland, and local artist Fanny Wimperis painted its portrait, which she exhibited at the Otago Institute meeting in September. She presented the oil painting to the museum, where it was hung on the wall near the New Zealand birds.⁶⁴ Because of her interest in the takahe, and because of her friendship with Parker and his wife, she became a member of the Institute.⁶⁵ As part of a Parker family tradition to use the surname of a friend as a middle name, they named their youngest, and only New Zealand-born son after her, Jeffery Wimperis Parker. But despite the friendship, Wimperis did not renew her membership of the Otago Institute.

Friendship explains an enigmatic note in one of the museum registers. A note in the 1911 Loan Register records: “Miss B. Turton a live tuatara (from Three Brother’s Islands) – the smaller are in case. Died 1916, stuffed from Mrs Halcombe and returned 1923.”⁶⁶ Born in New Plymouth in 1881, Miss Blanche Turton (1881-1961) travelled to England and there married a New Zealander, Norman Marshall Halcombe, who had survived war service with the Royal Flying Corps of the British Army. Three weeks after the ceremony he died of a sudden illness, so she returned to New Plymouth. After the death of her father, and in straitened circumstances brought about by a family quarrel over the estate, she and her mother moved into a “tiny four-roomed house” in March 1923, “the truth is we are still horribly poor” she complained to Benham.⁶⁷ From the three long rambling letters in the museum archive, it is clear she knew Benham quite well and knew his children when they were small. Nonetheless, she was an avid collector and was a naturalist who had written and published natural history notes for a syndicated newspaper column while she was in England.⁶⁸ Her maternal grandfather was William Swainson (1789-1855) the famous naturalist who came to New Zealand in 1841, and indirectly aroused her interest in nature. Halcombe asked for and received a fair number of bird skins from Benham. Benham asked Edwin Gibson, the museum taxidermist, who also had a private practice, to stuff and mount some of Halcombe’s bird skins:

“In unpacking my last lot of natural history treasures I have found a lovely skin ... of a fern bird from Stewart Island & I am sending it down to Mr Gibson to mount for me & send back with my other things.”⁶⁹

Gibson, however, was not a speedy worker “he has had my birds to remount 2 years when October comes. ... I know [he] does splendid work but wish he could be quicker” she complained.⁷⁰ Benham’s friendship with Halcombe was such that across the top of one letter he wrote “Acceded to the requests as far as able”.⁷¹ Her list of desiderata was long, but she felt justified in asking on two counts: she had bequeathed her collection to the local New Plymouth museum and she was concerned that, if Benham retired, no one else would send her skins: “I have ‘willed’ my collection of native birds & eggs to the museum here ... I am enclosing £9 10s 0d and will you stretch a big point & let me have as many skins as you can & if you will tell me what else they will cost I will send it later.”⁷² Benham’s supposed imminent retirement galvanized her: “I realize only too well, once you leave the Dn Museum all chance is gone forever.”⁷³ She had heard a rumour from William Henry Skinner (1857-1948), (Skinner’s father, who was based in New Plymouth) that Benham was thinking about retirement. “Now comes news from Mr Skinner [William] that you are giving up your connection with the Museum.”⁷⁴

Skinner’s curatorship embodied the disciplinary shift from zoology to anthropology, a pattern repeated in Wellington, Auckland and further afield. The numbers of natural history specimens donated to the museum dropped significantly during the 1920s and 1930s. Evidence from the registers covering the period 1868 to 1938 reveals a shift away from natural history towards gifts and donations of human-made artefacts. These include vast numbers of archaeological finds, as the new science took hold during the 1920’s; equally large numbers of so-called curios from Pacific islands; and items acquired from missionaries in China.

Such disciplinary shifts are noted throughout the museum world over the early years of the twentieth century when each museum curator reacted to the broad disciplinary landscape in which they operated. They also guided New Zealand science through museum-based knowledge production and through teaching they guided future generations of scholars. The specimens and artefacts they left behind were collected without the benefit of pages of written policies. Yet each curator had definite ideas about the place of the museum in the civic and academic communities. Unpicking their motives relies on just a few written statements which can be interpreted against the disciplinary boundary changes that occurred across the British Empire.⁷⁵ At the Otago Museum, the rupture was sudden and profound with the appointment of Skinner, an anthropologist, and the retirement of zoologist Benham in 1936.

Businesswomen

Some women were able to make a business out of natural history, beyond the small-scale collecting already mentioned. In the late-nineteenth and early-twentieth centuries women forged successful careers from taxidermy, fern collecting and curio dealing. Some, like Mrs Armstrong, seized an opportunity, and some, like Jane Yandle, took up business to cover the excesses of a feckless husband.

New Zealand had a plentiful fern flora which was quickly over-collected. Live ferns were collected for rockeries, botanic gardens and international exhibitions. Most large exhibitions had ferneries which became a distinct and notable point of difference to the Australian and other colonies. For the Indian and Colonial Exhibition held in London in 1886, the New Zealand bush scenery was faithfully created in a fernery much talked about on both hemispheres.⁷⁶ Many ferns were used as decoration for shops and churches, particularly at Christmas time.⁷⁷ By 1888 there were moves to curb such wholesale plunder. In Dunedin the nascent local amenities society was able to persuade local butchers not to cut down a grove of tree ferns in the city’s Town Belt which had taken “generations to grow”.⁷⁸ Exploitation

continued apace in part aided by the sale of blank fern albums readily available from stationers and bookbinders.⁷⁹ Such fern albums, similar to photo albums, were manufactured with cardboard pages with printed decorative borders and often had fancy bindings. Each page was therefore ready to receive pressed ferns from hobby collectors. Serious fern collectors used separate herbarium sheets that could be stored and sorted according to the latest taxonomic classification scheme.

The sale of completed fern albums became a lucrative trade, bought by people as presents for those left behind 'at home'. As historian Molly Duggins notes, New Zealand fern albums were "geared to entice the botanical collector, colonial tourist, and armchair traveller of empire alike."⁸⁰ In one local case, Mary Ann Armstrong (1838-1910), fern collecting developed into a thriving commercial business. Originally from Melbourne, she and her husband Charles Armstrong established a side-line to their hotel business, selling completed fern albums and canaries.⁸¹ She showed her albums at the 1881 Dunedin Industrial Exhibition and won prizes.⁸² The museum has two of Armstrong fern albums: the pressed ferns are arranged decoratively on the paper, and the base of each frond is hidden under a clump of aesthetically placed dried moss. This contrasted to an herbarium sheet where fronds of the same species at different ages, and states of fructification, were pressed together and mounted on the same sheet. Their labels detailing when and where the specimen was collected, by whom, and its determination, were all of equal importance as the specimen itself. The Armstrong albums, and over 450 loose herbarium sheets in the Otago Museum, are the remnants of the family business.⁸³

There were several women in New Zealand who made a living from taxidermy. Jane Yandle (1844-1915), the most famous of them, established her business in Auckland in 1866 when she exhibited "a magnificent case of American birds" that she had stuffed for a client.⁸⁴ Initially, she worked as part of a husband and wife team, although most of the taxidermied birds were credited as her work, and were of sufficiently high standard that they were shown at the Auckland Institute.⁸⁵ The business had its challenges and Jane was hampered by an alcoholic and abusive husband who left her and set up a taxidermy business of his own which failed a few years later in bankruptcy.⁸⁶ Despite this, she catered for a fashionable clientele, making fur stoles, muffs and tippets, and repairing fur coats and rugs.⁸⁷ In 1874 Hutton disparaged her style for museum purposes: "I think it better not to bring Mrs Yandle's kiwi for me, as I am in no hurry about the matter, and I don't like specimens set up and wired."⁸⁸ The kiwi never made it to Dunedin, and equally, she never sold a mount to Auckland Museum.⁸⁹ She carried on her business from a shop in Hobson Street until 1908, when she vacated the premises on her retirement.⁹⁰ Summarising Jane Yandle's predicament, historian Catherine Bishop says her taxidermy business was unusual, but her marital problems were not.⁹¹

Shopfront natural history was more common in Sydney than Auckland or elsewhere in New Zealand. Jane Catherine Tost (nee Ward) (1817-1889) was part of a three-generation family that made taxidermy mounts and dealt in the natural history trade.⁹² She learnt her trade at the Natural History Museum in London and emigrated to Australia ending up in Sydney in 1864. Her third daughter, known as Ada Jane (1848-1928), married a dealer in earthenware and china who died in a fire. Ada joined her mother in business after her second marriage to Henry Rohu (1844-1921), a Scottish curio collector.⁹³ The three of them formed Tost & Rohu and ran a successful business, selling furs, stuffed animals and Aboriginal and Pacific Island artefacts for more than forty years. The Otago Museum has over 350 artefacts purchased from Tost & Rohu between 1922 and 1931, funded in large part by Willi Fels (1858-1946), the museum's principal benefactor.

Lily Daff

Willi Fels, chair of the Museum Management Committee, agreed to an initial temporary appointment of Lily Daff in 1931. Her appointment was extended for successive periods, until she was given a permanent position in 1935, at an initial salary of £156 per annum, which was later increased to £176 per annum.⁹⁴ For comparison, Skinner had been appointed in 1919 as Assistant Ethnologist at a salary of £400 per annum.⁹⁵ An English artist, Daff had worked in a competitive environment for the greetings and Christmas card maker, Raphael Tuck & Sons. She came to New Zealand after her mother's death, arriving in 1926 without any plan to use her artistic skills.⁹⁶ However, she soon found work for the New Zealand Government Tourist and Publicity Department: fourteen colour plates of wildflowers were published in a book on *Some Better Known New Zealand Wildflowers and Birds*. Although not all the plates were signed, and her contribution was unacknowledged in the text they served as an introduction to her skill. The drawings came to the attention of Captain Ernest Valentine Sanderson (1866-1945), Secretary of the newly-formed Native Bird Protection Society, and he commissioned her to paint portraits of native birds for a series of albums. Daff initially came to Dunedin to paint the only stuffed takahe in New Zealand as part of this series.

Skinner appreciated her artistic skills and wrote early in their relationship to the London dealer Harry Beasley: "Yes, the drawings are excellent. They are done by Miss Daff, an English woman whom we are employing temporarily, mainly on the printing of cards. The whole appearance of the collections has improved 25% since she has been at work."⁹⁷ Daff's distinctive handwriting is spread through the 'D' Register (for ethnographic, anthropological, and archaeological items). For instance, in 1932, some seven per cent of the entries are hers, rising to 25 per cent the following year. But her larger contribution in these early years was writing more than 4,000 labels and cards for items on display in the newly-opened Fels wing, which, by 1933 "was complete, as far as such work can ever be regarded as complete".⁹⁸ Between the temporary museum periods of employment, Daff returned to Wellington to finish the commission from the Native Bird Protection Society (later known as Forest & Bird). She also wanted to make some drawings for Skinner and fitted them in with a trip to Auckland.

While in Auckland, she posted drawings back to Skinner, who was grateful, but asked her to make a sketch of the case of Stone Age implements in the Auckland Museum: "I would like a note of the vertical height and of the depth, and also of the height on the wall at which the case is fixed."⁹⁹ With this request, he set in motion a whole new career path for Daff. She sketched the whole 'History of Mankind' display containing the implements but noted: "there is much more in it than anticipated but I have made a rough plan of the layout with measurement and labels - the latter in detail - which should be very helpful."¹⁰⁰ The plans proved inspirational, and six months later Skinner boasted about Daff's efforts on Otago Museum's own small-scale history of mankind display. In the annual report he announced: "It is hoped in succeeding years to extend this method of exhibition to all cases."¹⁰¹

However, it took a further nine years for Daff to complete the much larger exhibit called 'The Emergence of Man'.¹⁰² It is unclear whether this was a re-vamped 'History of Man' exhibit, or something completely new. Daff's 'Emergence of Man' exhibit included "a beautiful small-scale copy of Charles Knight's fresco showing a Neanderthal family at the entrance of a Dordogne cave" that provided a splash of colour to the essential icy scene.¹⁰³ It is hard to know exactly which of Knight's works Daff copied. American artist Charles R. Knight (1874-1953) painted murals for the American Museum of Natural History in New York and Chicago's Field Museum. His biographer noted his reconstructions appeared in such major magazines as *The Century*, *Popular Science*, and *National Geographic* and were endlessly reproduced in books,

toys, and comic books.¹⁰⁴ The Otago Museum had a subscription to the *National Geographic* and it is probable, therefore, that Daff saw one of his illustrations there. Dunedin may or may not have had access to American toys and comics.

The benevolence of the Carnegie Corporation of New York is well-known in the New Zealand library world but has been underestimated in the museum world. The Carnegie-funded Markham Report on New Zealand museums was published in 1934. Grants from the Carnegie Corporation fostered educational activities and new display techniques. One such endeavour involved American Frank Tose, from the Californian Academy of Science, who was sent on tour to Australia and New Zealand to teach museum display technicians. Daff, and Elizabeth (Betty) Batham (1917-1974), an honorary staff member, went to Wellington at the end of 1937 to learn from Tose. There they met with others from Auckland, Christchurch, and Wellington. Daff reported: “The work here is very enjoyable – though some of it requires unlimited patience ... still Mr Tose seems satisfied.”¹⁰⁵ She explained some of the techniques she and Batham had learned “making flowers & foliage from wax and paper, modelling figures of seals & penguins and casting them”.¹⁰⁶ At the end of the course, Tose sent a report to Skinner: “Miss Daff has a lot of talent and from the eager way in which she has absorbed every scrap of information, will I am sure be of even greater help to you in the future”.¹⁰⁷ The diorama Daff and Batham made of penguins and seals at Little Papanui beach, when they were in Wellington, was finally placed on permanent exhibition in the main hall in 1939. Batham’s, featuring the Moeraki boulders, was placed in the Hocken gallery.¹⁰⁸

With almost palpable disbelief the Markham Report noted an absence of collections dealing with technology, meteorology, or geography. It complained: “New Zealand is primarily an agricultural country, but there is neither an agricultural museum nor even an agricultural room in any New Zealand town.”¹⁰⁹ So, Daff’s newly enhanced modelling skills were applied to a larger project—an agricultural display. It contained “models of British thoroughbred horses in an appropriate setting”.¹¹⁰ But it was not completed until 1942, when a much-reduced war-time annual report noted her display “adds greatly to the attractiveness of our galleries”.¹¹¹ There is some doubt as to whether Daff made the horse models or whether she incorporated existing models. Models of fresian and jersey cows were special orders from the London-based artist T. Ivester Lloyd, who agreed a discounted price of £25 and dispatched them carefully packed in February 1938.¹¹² The shipping paperwork reveals they were made from plastic, which was presumably beyond Daff’s modelling skills.¹¹³ Model horses were not mentioned.

In 1939 Lily Daff was busy re-displaying a case of hei tiki, which led to the publication of a small booklet with illustrations by her.¹¹⁴ Hei tiki are ornamental pendants usually made from pounamu (greenstone) and considered taonga (treasures) by Māori. This led in due course to a second booklet, a guide to the museum, which Skinner reported to the Management Committee: “The Guide will be of the same size as the Hei Tiki booklet but will contain a larger number of illustrations. The cost will be sixpence.”¹¹⁵

Daff completed many technical drawings to illustrate Skinner’s research papers published in the *Journal of the Polynesian Society*. Some were republished in the celebratory volume of essays acknowledging Skinner’s “contribution to the development of New Zealand Anthropology.”¹¹⁶ Lily Daff’s progress can be followed through the annual reports until she retired through ill-health in 1945 having become ‘Officer in Charge of Exhibition’. She died later in the year and was much missed: “the results of her work are to be found in all departments of the museum, ... her chief talent in an unerringly effective use of colour, clear and dignified lettering, and strikingly beautiful sketches, usually of animals or flowers.”¹¹⁷

With these words Skinner has neatly minimised Daff's importance as the sole designer in charge of the Otago Museum displays. However, she had set a trend and her successor, Joan A. Wilson who was trained by Daff took over the position in 1946.¹¹⁸

Conclusion

Superficially it appears women began and ended their association with the Otago Museum with paintbrush in hand, yet that would be to deny many their agency and scholarship. Several women, like Rich, Fyfe, and Mestayer, with scholarly intent, have been important to the museum, although their varying contributions have been overlooked. The reasons are complex and differ for each of them because during their lifetime the domestic realm was considered the proper place for women. This paternalistic attitude kept women largely out of sight, if not out of the museum altogether.

Women's relationships with the museum are characterized by a variety of entanglements. Donations came from widows or others forced by changing circumstances to divest themselves of once-cherished items. Hard-won expertise gained by women allowed them to present talks to both gatherings of scientists, as well as more homely groups and their increasing freedoms and modernity is a familiar trope. Sometimes women bolstered their income by lecturing, and the museum provided status to add to their relatively insecure academic careers.

Keeping women out of science was not a deliberate ploy by the men in charge at the museum, most of whom supported those that came through the doors. Rather it was the general ethos of the period. Each of the Otago Museum curators were eminent within New Zealand and each collected awards and accolades and upheld an international reputation. Each held authority, albeit sometimes contested, over what should be incorporated into the collections and were disciplinary gatekeepers moulding what natural history and associated science looked like to members of the public and students alike. Contributions from the individual women, although only patchily recorded in various museum histories, cannot now be discounted so easily.

¹ Anne Whitelaw, "Women, Museums and the Problems of Biography," in *Museums and Biographies: Stories, Objects, Identities*, ed. Kate Hill (Woodbridge, Suffolk: Boydell Press, 2012), 73-86.

² Kate Hill, "'He knows me ... but not at the museum': Women, natural history collecting and museums, 1880-1914," in *Narrating Objects, Collecting Stories*, ed. Sandra Dudley (London: Routledge, 2012), 184-196.

³ Susan Sheets-Pyenson, *Cathedrals of Science: The development of colonial natural history museums during the late nineteenth century* (Kingston, Ont.: McGill-Queen's University Press, 1988); Sally Gregory Kohlstedt, "Museums of Natural History and Science," in *The Cambridge History of Science*, ed. Hugh Slotten, Ronald L. Numbers, and David N. Livingstone (Cambridge: Cambridge University Press, 2020), 108-123.

⁴ Rosi Crane, "A 'strange fauna': T.J. Parker (1850-1897) and the creation of zoological knowledge in Otago," *New Zealand Journal of History* 49, 2 (2015): 60-80.

⁵ Rebekah Higgitt and Charles Withers, "Science and sociability: Women as audience at the British Association for the Advancement of Science, 1831-1901," *Isis* 99 (2008): 1-27.

⁶ Kate Hill, *Women and Museums, 1850-1914: Modernity and the gendering of knowledge* (Manchester: Manchester University Press, 2016), 5.

⁷ Rosi Crane, "What were they thinking? Tracing evolution in the Otago Museum 1868-1936," *Museum History Journal* 13, 1 (2020): 61-79.

⁸ Margery Blackman, "Lily Daff designer and natural history illustrator," in *Three Dunedin Designers* (Dunedin, NZ: Hocken Library, 1999), 4-14.

-
- ⁹ Entries dated 16 February, 13 March, 14 December 1869 [Various] First Register of Museum Specimens 1868-1892, *Otago Museum Archive*.
- ¹⁰ Anonymous, "Death [of unnamed fifth daughter]," *Evening Star*, 2 February 1878, 2.
- ¹¹ Anonymous, "The Courts Today," *Evening Star*, 27 March 1890, 2.
- ¹² Anonymous, "Police Court Cases," *Otago Witness*, 11 October 1894, 34.
- ¹³ Charles Chilton, "List of crustacea from the Chatham Islands," *Transactions and Proceedings of the New Zealand Institute* (hereafter *TPNZI*) 38 (1905): 269-73; Thomas Broun, "Additions to the coleopterous fauna of the Chatham Islands," *TPNZI* 42 (1909): 306-10; Maxwell Young, "Marine fauna of the Chatham Islands," *TPNZI* 60 (1930): 136-66; Charles Chilton, "Some Australian and New Zealand Gammaridae," *TPNZI* 48, (1915): 359-70.
- ¹⁴ H.J. Finlay, "The Recent Mollusca of the Chatham Isles," *TPNZI* 59 (1928): 232-86.
- ¹⁵ W.N. Benson, "William Blaxland Benham 1860-1950 [Obituary]," *Obituary Notices of Fellows of the Royal Society* 7, 20 (1951): 293-301.
- ¹⁶ Anonymous, "Christmastide," *Thames Star*, 24 December 1901.
- ¹⁷ Anonymous, "Local & General," *Star*, 31 December 1901.
- ¹⁸ W.B. Benham, "The Sipunculids of New Zealand," *TPNZI* 35 (1903): 172.
- ¹⁹ "The Sipunculids of New Zealand."
- ²⁰ E. Ehlers, "Neuseeländische Anneliden II," *Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen* 5, 4 (1907): 1-38.
- ²¹ Anonymous, "Personal Notes From London," *Auckland Star*, 4 January 1905. Herklots, John 2015 "Agnes Murgoci 1874-1929," https://rshg.org.uk/wp-content/uploads/2015/08/MURGOCI_Agnes7.5.1929..pdf
- ²² George Malcolm Thomson to T.F. Cheeseman, 18 July 1884, *Cheeseman Papers, Auckland War Memorial Museum Archive*, MS58 Box 17/2.
- ²³ Kathryn Rachel Ferry, "Clutter and the clash of middle-class tastes in the domestic interior," *Open Cultural Studies* 1 (2017): 113-24.
- ²⁴ Evelleen Richards, "Huxley and woman's place in science: The 'woman question' and the control of Victorian anthropology," in *History, Humanity and Evolution: Essays for John C. Greene*, ed. James R. Moore (Cambridge: Cambridge University Press, 1989), 253-284.
- ²⁵ Alice N. Walters, "Conversation pieces: Science and politeness in eighteenth-century England," *History of Science* 35, 2 (1997): 121-54.
- ²⁶ Emma Thomson Diary 1887, *Emma Thomson: Diaries, Hocken Collections*, MS-1312/001. 10 May 1887.
- ²⁷ Diary 1891, *Emma Thomson: Diaries, Hocken Collections*, MS-1312/005. 12 May 1891. Margaret Gordon Burn (1825-1913) Retired principal Otago Girls' High School. Eileen Wallis, "Burn, Margaret Gordon," in *Dictionary of New Zealand Biography* (Wellington: Ministry of Culture & Heritage, 2013).
- ²⁸ Diarmid A. Finnegan, *Natural History Societies and Civic Culture in Victorian Scotland* (London: Pickering & Chatto, 2009), 70; [Various] Otago Institute Minute Book 1883-1898, *Hocken Collections*, MS0128B. 24 Apr 1883.
- ²⁹ Samuel J.M.M. Alberti, "Conversazioni and the experiences of science in Victorian England," *Journal of Victorian Culture* 8, 2 (2003): 208-30.
- ³⁰ The national museum in Wellington has a complex history and has been known by several names, The Colonial Museum, The Dominion Museum, and today, Te Papa Tongarewa Museum of New Zealand.
- ³¹ Anonymous, "Sea Shore Shells," *NZ Truth*, 6 December 1928, 17.
- ³² *Ibid.*
- ³³ Tom Iredale and M.K. Mestayer, "List of marine Mollusca from Lyall Bay, near Wellington, New Zealand," *TPNZI* 40 (1907): 410-15.
- ³⁴ Anonymous, "Science Congress," *Press*, 7 February 1919, 8; Anonymous, "Science Congress," *Evening Post*, 26 January 1921, 8.
- ³⁵ Anonymous, "Aquarium Society," *Evening Post*, 8 May 1937, 24.
- ³⁶ M.K. Mestayer, "Notes on New Zealand Mollusca. No 5.," *Transactions of the New Zealand Institute* 61 (1930): 144-46.

- ³⁷ W.B. Benham, *Annual Report of the Otago University Museum* (Dunedin: Otago University Museum, 1907).
- ³⁸ Bruce W. Hayward and Margaret S. Morley, “Marjorie Mestayer (1880-1955) and her molluscan studies and collections,” *Poirieria* 36, December (2011): 13-19.
- ³⁹ Barbara Brookes, Erik Olssen, and Emma Beer, “Spare time? Leisure, gender and modernity,” in *Sites of Gender: Women, men and modernity in southern Dunedin, 1890-1939*, ed. Barbara Brookes, Annabel Cooper, and Robin Law (Auckland: Auckland University Press, 2003), 151-189. Barbara Brookes, “The travelling stereopticon,” in *He Taonga, He Kōrero: The lives of colonial objects*, ed. Annabel Cooper, Lachy Paterson, and Angela Wanhalla (Dunedin: Otago University Press, 2015), 152-157.
- ⁴⁰ Rosi Crane, “Rich Pickings: The intellectual life of Josephine Gordon Rich (1866-1940),” *Journal of New Zealand Studies* 24 (2017): 57-71.
- ⁴¹ Mary R.S. Creese and Thomas M. Creese, *Ladies in the Laboratory III. South African, Australian, New Zealand and Canadian women in science: Nineteenth and early twentieth centuries. A survey of their contributions* (Lanham, Maryland: Scarecrow Press, 2010), 79.
- ⁴² *Ladies in the Laboratory III*, 78.
- ⁴³ Anonymous, “Otago Institute,” *Otago Daily Times*, 11 May 1892, 2.
- ⁴⁴ <https://www.parliament.nz/en/get-involved/features/a-monster-petition-125th-anniversary-of-the-suffrage-petition/>
- ⁴⁵ Anna P. Stout, “The New Woman” (December 1895), cited in Barbara Brookes, *A History of New Zealand Women* (Auckland: Bridget Williams Books, 2016), 145.
- ⁴⁶ Lynn Linton, “Nearing the Rapids,” *Otago Witness*, 10 May 1894, 41.
- ⁴⁷ L.W. Dalrymple, “A few words on the Higher Education of Women”, Fergusson & Mitchell Dunedin, 1872, p.5, cited in Barbara Brookes, *A History of New Zealand Women*, (2016), 5; Dorothy Page, “Dalrymple, Learmonth White,” in *Dictionary of New Zealand Biography* (Wellington: Ministry for Culture, 2012).
- ⁴⁸ *Ibid.*
- ⁴⁹ A.D. Macalister and D.W. Taylor, eds., *Roll of the graduates of the University of Otago : to May 1988* (Dunedin, N.Z.: University of Otago, 1989).
- ⁵⁰ Rosi Crane, “Creating Parker & Haswell’s *A Textbook of Zoology* (1897),” *Script & Print* 39, 4 (2015): 221-40.
- ⁵¹ “Show and Tell: T.J. Parker and late nineteenth-century science in Dunedin,” *Journal of the Royal Society of New Zealand* 47, 1 (2017): 61-66.
- ⁵² Alison Clarke, *Otago: 150 years of New Zealand’s first university* (Dunedin: Otago University Press, 2018), 171.
- ⁵³ Anonymous, “University of Otago : Meeting of Council,” *Evening Star*, 12 February 1927, 11.
- ⁵⁴ Anonymous, “University of Otago : Meeting of Council,” *Evening Star*, 17 August 1927, 4.
- ⁵⁵ Anonymous, “University of Otago : Meeting of Council,” *Evening Star*, 14 February 1928, 6.
- ⁵⁶ Marion L. Fyfe, “A new fresh-water hydroid from Otago, *Cordylophora lacustris* Allman var. *otagoensis* n. subsp.,” *TPNZI* 59 (1928): 813-23.
- ⁵⁷ Anonymous, “Personal & Social,” *Otago Daily Times*, 2 December 1939, 18.
- ⁵⁸ Marion L. Fyfe, “List of New Zealand polychaetes: Based on the manuscript of the late Sir William Benham “ *Bulletin New Zealand Department of Scientific and Industrial Research* 105 (1952): 3-38.
- ⁵⁹ Anonymous, “Afternoon Tea at the Museum,” *Evening Star*, 18 October 1930, 27.
- ⁶⁰ Charlotte Macdonald, “Strangers at the hearth,” in *At Home in New Zealand*, ed. Barbara Brookes (Wellington: Bridget Williams Books, 2000).
- ⁶¹ Cited in Frances Walsh, *Inside Stories: A history of the New Zealand housewife 1890-1975* (Auckland: Godwit, 2011), 318.
- ⁶² Kate Hill, *Women and Museums, 1850-1914: Modernity and the gendering of knowledge*, (2016), 60.
- ⁶³ F.R.J. Sinclair, “High Street Quaking: A history of Dunedin’s “inner circle”” (PhD, University of Otago, 1996).
- ⁶⁴ Minute dated 12 September 1881, [Various] Otago Institute Minute Book 1869-1883, *Hocken Collections*, MS0128A.

- ⁶⁵ Minutes 12 June 1883, 13 May 1884, 10 May 1892, 14 May 1895, 12 May 1896, Otago Institute Minute Book 1883-1898, MS0128B, Hocken Collections, Dunedin.
- ⁶⁶ Loan Register entry dated 11 October, 1911. [Various] Register of Museum Specimens 1893-, *Otago Museum Registers, Otago Museum*.
- ⁶⁷ Blanche Halcombe to W.B. Benham, 13 April 1923, *Otago Museum Archive*, 1919-1932/151.
- ⁶⁸ J. Drummond, "In Touch With Nature. Notes on Natural History in New Zealand," *Otago Daily Times*, 30 March 1912, 7; ———, "In Touch With Nature. Notes on Natural History in New Zealand," *Otago Daily Times*, 2 September 1913, 8.
- ⁶⁹ Blanche Halcombe to W.B. Benham, 13 April 1923, *Otago Museum Archive*, 1919-1932/151.
- ⁷⁰ to W.B. Benham, 17 July 1924, *Otago Museum Archive*, 1919-1932/156.
- ⁷¹ to W.B. Benham, 23 April 1923, *Otago Museum Archive*, 1919-1932/153, 155.
- ⁷² to W.B. Benham, 17 July 1924, *Otago Museum Archive*, 1919-1932/156.
- ⁷³ to W.B. Benham, 17 July 1924, *Otago Museum Archive*, 1919-1932/156.
- ⁷⁴ to W.B. Benham, 17 July 1924, *Otago Museum Archive*, 1919-1932/156.
- ⁷⁵ Rosi Crane, "What were they thinking?"
- ⁷⁶ Anonymous, "The Colonial Exhibition," *Te Aroha News*, 21 August 1886, 4; Anonymous, "The Indian and Colonial Exhibition. New Zealand," *The Times*, 24 July 1886, 4.
- ⁷⁷ Anonymous, "Christmas Preparations," *Otago Witness*, 31 December 1881, 12; Anonymous, "Peninsula : Annual Reunion of the Portobello Church Congregation," *Otago Witness*, 11 March 1882, 14.
- ⁷⁸ Anonymous, "The Amenities of Dunedin and its Neighbourhood," *Otago Daily Times*, 12 September 1888, 2.
- ⁷⁹ Anonymous, "Advertisement: R.B. Wotton," *Western Star*, 25 April 1874, 1.
- ⁸⁰ Molly Duggins, "'The world's fernery': New Zealand, fern albums, and nineteenth-century fern fever," in *New Zealand's Empire*, ed. Katie Pickles and Catharine Colborne (Manchester: Manchester University Press, 2016), 102.
- ⁸¹ Anonymous, "Advertisement: Ferns," *Otago Daily Times*, 18 October 1873, 3.
- ⁸² Anonymous, "Dunedin Industrial Exhibition," *North Otago Times*, 21 June 1881, 2.
- ⁸³ The herbarium numbers in Tūhura Otago Museum BT1123-BT1572 comprise mostly South Island specimens but also include ferns from North Island locations including the Coromandel Peninsula, Gisborne, and Auckland regions.
- ⁸⁴ Anonymous, "Young Mens' Christian Association Opening Entertainments," *Daily Southern Cross*, 9 February 1866, 4.
- ⁸⁵ Anonymous, "Auckland Institute," *Daily Southern Cross*, 11 October 1870.
- ⁸⁶ Anonymous, "Business Cards [Advertisements]," *Daily Southern Cross*, 27 May 1873, 1; Anonymous, "Law and Police," *New Zealand Herald*, 25 July 1877, 3; Anonymous, "Law and Police," *New Zealand Herald*, 7 December 1880, 6.
- ⁸⁷ Anonymous, "Advertisement," *Observer [Auckland]* 1889.
- ⁸⁸ F.W. Hutton to T.F. Cheeseman, 27 October 1874, *Auckland War Memorial Museum Archive*, MS58 Box 9/3.
- ⁸⁹ Rosi Crane and B.J. Gill, "William Smyth (1838-1913), a commercial taxidermist of Dunedin, New Zealand," *Archives of Natural History* 45, 2 (2018): 292-308.
- ⁹⁰ Anonymous, "Electoral," *New Zealand Herald*, 17 September 1908, 8.
- ⁹¹ Catherine Bishop, *Women Mean Business: Colonial businesswomen in New Zealand* (Dunedin: Otago University Press, 2019), 258.
- ⁹² Christine E. Jackson, "The Ward family of taxidermists," *Archives of Natural History* 45, 1 1-13 (2018).
- ⁹³ Martha Sear, "Rohu, Ada Jane (1848-1928)," in *Australian Dictionary of Biography* (Canberra: National Centre of Biography, Australian National University, 2005).
- ⁹⁴ [Various] Museum Management Committee Minutes 1930-1950, *Otago Museum Records, Hocken Collections*, MS-2786/010. Minutes dated; 10 Nov 1931, 4 Oct 1932, 26 Oct 1932, 30 May 1934, 25 Feb 1932, 27 Nov 1935.
- ⁹⁵ H.D. Skinner "The inauguration of the teaching of anthropology in the University of Otago : Lecture delivered at the annual general meeting of the Anthropology Society, 15 October 1961," *Skinner Papers, Hocken Collections*, MS-1218/025.

-
- ⁹⁶ Anonymous, "Editorial," *Otago Daily Times*, 27 January 1891, 2; Margery Blackman, "Lily Daff designer and natural history illustrator," 9.
- ⁹⁷ H.D. Skinner to Harry Beasley, 4 November 1931, *Otago Museum Archive*, 1931-1932/62.
- ⁹⁸ Margery Blackman, "Lily Daff designer and natural history illustrator," 9; W.B. Benham, *Annual report of the Otago University Museum* (Dunedin: Otago University Museum, 1933).
- ⁹⁹ H.D. Skinner to L.A. Daff, 24 February 1933, *Otago Museum Archive*, 1933/188
- ¹⁰⁰ L.A. Daff to H.D. Skinner, 3 April 1933, *Otago Museum Archive*, 1933/189.
- ¹⁰¹ W.B. Benham, *Annual report of the Otago University Museum* (1933), 9-10.
- ¹⁰² H.D. Skinner, *Annual report of the Otago University Museum* (Dunedin: Otago Museum, 1942).
- ¹⁰³ Museum Management Committee Minutes 1942, *Otago Museum Archive*, 1942/341. Minute dated 14 July 1942.
- ¹⁰⁴ Richard Milner, "Charles R. Knight: The artist who saw through time," *Fine Art Connoisseur*, March/April, (2013).
- ¹⁰⁵ L.A. Daff to Vida Barron, 16 January 1938, *Otago Museum Archive*, 1938/300.
- ¹⁰⁶ to H.D. Skinner, 20 January 1938, *Otago Museum Archive*, 1938/302.
- ¹⁰⁷ Frank Tose to H.D. Skinner, 28 January 1938, *Otago Museum Archive*, 1938(II)/287.
- ¹⁰⁸ H.D. Skinner, *Annual report of the Otago University Museum* (Dunedin: Otago Museum, 1939).
- ¹⁰⁹ S.F. Markham and W.R.B. Oliver, *A Report on the Museums & Art Galleries of New Zealand to the Carnegie Corporation of New York* (London: Museums Association, 1933).
- ¹¹⁰ H.D. Skinner, *Annual report of the Otago University Museum* (Dunedin: Otago Museum, 1938).
- ¹¹¹, *Annual report of the Otago University Museum*, (1942).
- ¹¹² Lord Bledisloe to H.D. Skinner, 15 October 1937, *Otago Museum Archive*, 1938/76.
- ¹¹³ Express Travel & Transport Co. to H.D. Skinner, 4 February 1938, *Otago Museum Archive*, 1938/86.
- ¹¹⁴ Museum Management Committee Minutes. Minute dated 10 October 1939, *Hocken Collections*, MS2876-010.
- ¹¹⁵ Museum Management Committee Minutes. Minute dated 13 September 1944, *Hocken Collections*, MS2876-010.
- ¹¹⁶ Peter Gathercole, "Introduction," in *Comparatively Speaking: Studies in Pacific material culture 1921-1972*, ed. Peter Gathercole, Foss Leach, and Helen Leach (Dunedin: University of Otago Press, 1974), 11-17.
- ¹¹⁷ H.D. Skinner, *Annual report of the Otago University Museum* (Dunedin: Otago Museum, 1945).
- ¹¹⁸ *Annual report of the Otago University Museum* (Dunedin: Otago Museum, 1946).