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Stone Tools of the Mackenzie Basin Moa-hunters, South Canterbury

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Analysis of small artefact assemblages from archaeological sites in the Mackenzie Basin, inland South Canterbury, inferred to be associated with early moa-hunters, reveals that the main stone tools utilised by them were flakes and blades of silcrete and slate knives (ulu), supplemented by porcellanite flakes and items made from local rock types. Adzes of basalt and greywacke were also being used at some sites. Silcrete was probably obtained from the local Grays Hills quarry and porcellanite from the Bremner quarry in Central Otago. Other artefacts and lithic materials were undoubtedly transported from the east coast, via the Waitaki River valley, indicating the moa-hunters probably came from semi-permanent coastal occupation sites in South Canterbury and/or North Otago. Previous radiocarbon dates indicate moa-hunting was carried out within the basin in the fourteenth to fifteenth century.

Keywords: archaeological sites, Canterbury, lithic materials, Mackenzie Basin, moa-hunters, stone tools

Introduction

Much of what has been written about the prehistory of the Canterbury region has been based upon the archaeological investigation of large Māori (or moa-hunter) occupation sites along the coast, such as Redcliffs and Rakaia, and the study of their distinctive artefact assemblages (Duff 1956; Challis 1995; Moore 2022). By comparison, remote inland areas have been largely overlooked, particularly in regard to the range of artefacts and lithic materials utilised by early moa-hunters. These items not only inform us about the tool kit being used by these people, but may also provide important clues as to where they travelled from and their wider connections.

In 1968–1969, an extensive field survey of the Lake Pukaki area in the Mackenzie Basin was undertaken, prior to the impending completion of the Pukaki hydro-electric scheme (Trotter 1969; see also Trotter and McCulloch 1999). Altogether, 10 definite pre-European archaeological sites were located, six of which contained stone artefacts. A subsequent survey of the Lake Tekapo area was carried out in 1970 (Trotter 1970a), during which 11 new sites were recorded, although few of these yielded any artefacts. Since then, the only work of any note has been a field inspection of the upper Ahuriri River valley, in the southern part of the basin (Bristow et al. 1990; McGovern-Wilson and Bristow 1991). Some new information has also been obtained on the Grays Hills silcrete source (Moore et al. 2020).

This paper provides a brief account of the taonga (stone artefacts) and lithic materials used by moa-hunters in the Mackenzie Basin and at a rock shelter site (Shepherds Creek) in the nearby Waitaki gorge. Although all of the artefacts found during the Lakes Pukaki and Tekapo surveys and the excavations at Shepherds Creek were lodged with Canterbury Museum at the time, they have not been previously studied in any detail.

Archaeological Sites

The locations of the archaeological sites considered here are shown on Figure 1, and the sites, along with the main types of stone materials recorded, are listed in Table 1. Of the 12 sites, two are classified as oven sites, one as an oven/artefact site, three as camp sites, one as an oven/midden, three as artefact finds and two as rock shelters (www.archsite.org.nz). The largest is Killermont No.2 (site H39/19), near Ōmarama, which is at least 160 m by 25 m in area (Bristow et al. 1990). The largest artefact collection (63 items) is from the Shepherds Creek rock shelter H39/18 in the Waitaki gorge (Table 2). Site numbers are those of the New Zealand Archaeological Association Site Recording Scheme (www.archsite.org.nz).

The Shepherds Creek shelter was situated on the western side of the Waitaki gorge (now flooded by Lake Benmore). It was excavated by Duff and Trotter in 1958, and subsequently by Scarlett and others in 1964, though there does not appear to be any account of the later dig. Drawings on the wall of the shelter were fully documented by Ambrose (1970), but there is only a brief mention of the stone material recovered (in Trotter 1970b: 449).

Although all sites in the Mackenzie Basin are considered to have been associated with moa-hunting (Challis 1995), moa bone is in fact sparse and was only recorded at two of the sites – Killermont No.2 and Boltons Gully (H37/1). At Killermont No.2 the predominant species was the Stout-legged Moa *Euryapterix geranoides*, but included single bones tentatively identified as *Emeus crassus* and *Pachyornis elephantopus* (Challis 1995, identifications by Trevor Worthy). The bones from Boltons Gully were apparently not identifiable. Moa gizzard stones are also rare, being recorded only from Avon Burn (McGovern-Wilson and Bristow 1991). The scarcity of moa bones in the area was noted by Chapman (1884: 174) more than 130 years ago.

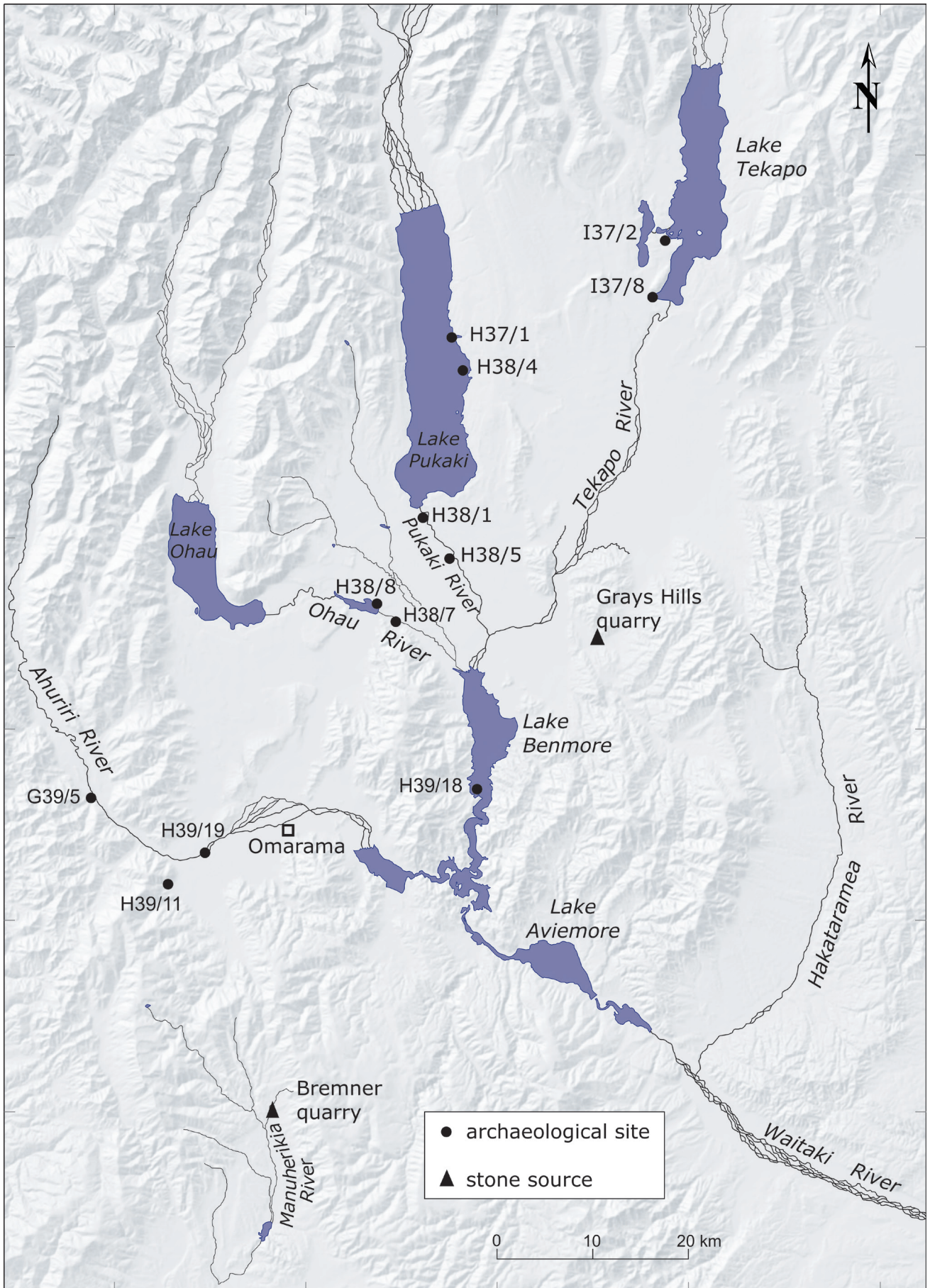


Figure 1. Map of the Mackenzie Basin area, showing the location of archaeological sites referred to in this paper, including important stone sources.

Table 1. List of artefacts/stone materials from archaeological sites in the Mackenzie Basin (imperial site numbers in brackets)

| Site | Site type | Silcrete | Porcellanite | Slate | Other |
|---------------------------------------|----------------|-----------|--------------|-------|----------------------------|
| Lake Tekapo | | | | | |
| I37/2 (S90/2) | Artefact find | 1 | | 1 | Sandstone |
| I37/8 (S100/7) | Oven | | | 1 | Greywacke |
| Lake Pukaki | | | | | |
| H37/1 (S100/5), Boltons Gully | Oven | | | | Red argillite |
| H38/4 (S100/4) | Rock shelter | 1 | | | |
| Pukaki River | | | | | |
| H38/1 (S100/1) | Camp site | 13 (147g) | | | |
| H38/5 (S100/6) | Artefact/camp | 18 (118g) | | | Argillite, adze |
| Ōhau River | | | | | |
| H38/7 (S109/14) | Camp site | 17 (176g) | 6 (15g) | 1 | Red argillite |
| H38/8 (S109/15) | Oven/midden† | ? | | 1 | Shell |
| Ōmarama | | | | | |
| H39/11 (S116/2), Killermont No.1* | Oven/arteifact | X | | | |
| H39/19 (S116/26), Killermont No.2* | Camp site | X | X | X | Adze flakes, red argillite |
| Avon Burn | | | | | |
| G39/5 (S108/1)* | Artefact find | c.12 | | | Chert, red argillite |
| Shepherds Creek | | | | | |
| H39/18 (S109/5) | Rock shelter | 19 | 2 | | See Table 2 |

* Data from Bristow et al. (1990) and McGovern-Wilson & Bristow (1991).

† Originally recorded as a camp site

X = present

Table 2. Stone artefacts from the Shepherds Creek site H39/18, Waitaki gorge. Canterbury Museum 2008.1115.9, 2008.1115.35

| Lithology | No. | Description |
|--------------|-----|--|
| Silcrete | 19 | Flakes, pieces, 1 core |
| Chert | 30 | Flakes, pieces, 2 cores |
| Chalcedony | 3 | Flakes |
| Porcellanite | 2 | Flakes |
| Greywacke | 2 | Flake off polished adze, worked cobble |
| Obsidian | 2 | Flakes |
| Pounamu | 2 | 1 piece sawn |
| Basalt | 1 | Piece off polished adze |
| Dolerite | 1 | Flake off adze |
| Kokowai | 1 | Pebble-sized piece (44 g) 2008.1115.30 |

Dating

Radiocarbon dates have been previously obtained for Boltons Gully (H37/1) and Killermont No.2 (Challis 1995). The single Boltons Gully date (NZ1378) was on unidentified charcoal, which provided a conventional age of 505 ± 44 years BP. This was re-calibrated using Calib v8.2 (Stuiver and Reimer 1993; calib.org/calib) and the latest terrestrial calibration curve SHCal20 (Hogg et al. 2020), giving a date of AD 1399–1500 at 95% confidence, or AD 1417–1456 at 68% confidence. Thus the site was probably occupied in the early to mid fifteenth century, assuming no significant inbuilt age for the charcoal.

Three dates were obtained for Killermont No.2, all on charcoal from short-lived species (Challis 1995, Appendix 3). Two of these (Wk2782, 2916) are virtually identical, with conventional ages of 640 ± 35 BP and 620 ± 45 BP. These provide re-calibrated dates (using SHCal20) of AD 1297–1413 at 95% confidence (or 1319–1401 at 68% confidence) and AD 1298–1434 at 95% confidence (or 1320–1413 at 68% confidence) respectively. Wk2991 has a conventional age of 590 ± 45 BP and calibrates to AD 1315–1448 at 95% confidence (or 1326–1430 at 68% confidence). Combined, the three dates from this site indicate that it was occupied in the mid to late fourteenth century.



Figure 2. Silcrete blades from the Killermont No.1 site. Otago Museum D67.144-146. Photo by Anne Harlow

Rock Types and Artefacts

Artefacts were examined in hand specimen and under a binocular microscope. Colours were established with reference to the Munsell Soil Color Chart (2000 version).

Silcrete

Many of the sites contained flakes of fine-grained silcrete (Table 1). These typically range from white to grey, but those from the Pukaki River site H38/5 are of various colours. Few show any obvious signs of use, though about 50% of the flakes from H38/7 appear to have some use wear. Only one core was found, at H38/5, which has a rough, weathered cortex. Silcrete blades have been found at Killermont No.1 (Fig. 2), and a few fragments of blades were also recorded at Killermont No.2 (Bristow et al. 1990) and site H38/7 on the Ōhau River.

Porcellanite

Only three of the sites contained flakes of porcellanite, in small numbers (Table 1). Those from H38/7 were previously recorded as chert (Trotter 1969), but although quite chert-like in appearance they have a different texture and the colours (predominantly yellow brown, pinkish grey, medium light grey) are typical of porcellanite artefacts from elsewhere (Fig. 3). The porcellanite flakes found at Killermont No.2 were described as being mainly grey and orange in colour (McGovern-Wilson and Bristow 1991).

Chert and Chalcedony

Shepherds Creek is the only site where a significant quantity of chert was found (Table 2). Most of the flakes and pieces (and one core) consist of grey chert, but a few are pale brown and white. The grey chert is typical of material from the Kaikōura area (Moore 2021a). There is also a large core (part cobble) of very weathered, poor quality white chert, which could be from a local source. The assemblage from this site also includes three flakes of chalcedony.

Bristow et al. (1990) recorded a small number of chert flakes at Killermont No.2, and one large flake of a grey to black flint/chert-like material at Avon Burn.

Slate/Argillite

Pieces of slate, or more correctly grey argillite, were recorded at four sites (Table 1). Site H38/7, on the Ōhau River, contained a broken ulu (knife) of dark grey argillite which had been polished on both sides, and possessed a slightly rounded upper edge. It has a minimum length/width of 95 mm, and therefore was probably quite a large object originally.

Five flakes of dark grey argillite with partly polished surfaces were found at site H38/5 and may represent the remains of a slate knife. Another piece of medium to dark grey argillite showing evidence of grinding was



Figure 3. Porcellanite flakes of various colours from the Ōhau River site H38/7. Canterbury Museum 1969.176.12. Photo by the author

also found at Lake Tekapo (I37/8), along with several other pieces with smooth surfaces but no obvious evidence of intentional polishing.

Anderson (2003 fig 12.1) recorded five ulu from the Mackenzie Basin. Two of these appear to correspond to those from the Ōhau River sites, but he also listed two additional items from the Pukaki River. Another was found at or near Grays Hills.

Red argillite has been recorded at four sites. From Boltons Gully H37/1 there is one flake of greyish-red argillite with a smoothed edge and slight polishing on both sides, which may represent a fragment of an ulu. The edge shows longitudinal striations, suggestive of a cutting action. About 40 pieces of red argillite were also found at H38/7, of which two were possibly intentionally polished, although the smooth surfaces could be natural. A single small piece of “ground red slate” was recorded at Killermont No.2, and similar material at Avon Burn (Bristow et al. 1990: 3–4).

Trotter (1969) referred to this material as “red jasper” and noted that it occurred naturally in the river gravels. It is likely to originate from bands of red and green indurated mudstone within the Permian-Triassic greywackes forming the ranges between the head of Lake Pukaki and Lake Tekapo (Cox and Barrell

2007), although there is also a potential source in the Hakataramea valley (Moore 2021b).

Obsidian and Pounamu

Two small obsidian flakes were identified from Shepherds Creek, one of which is olive green in transmitted light and clearly originated from Mayor Island. The other is grey in transmitted light and shows use wear.

One of the two flakes of pounamu (nephrite) recorded from this site had been sawn longitudinally and may be from an adze.

Kokowai

There is one rounded, pebble-sized piece of kokowai from Shepherds Creek, which conceivably could have been used to produce some of the drawings on the shelter wall (see also Trotter 1970b: 449).

Other

Minor use of greywacke was recorded at Lake Tekapo and Shepherds Creek. Two used spalls of greywacke were found at I37/8, Lake Tekapo, one of which is roughly circular and the other more elongate (Fig. 4). There was also a smaller spall of greywacke/quartz which had been provisionally identified as a chisel, though it does not show any obvious sign of use.

At Shepherds Creek there was a broken greywacke



Figure 4. Used greywacke spalls from Lake Tekapo, site I37/8. Canterbury Museum 2008.1075.1. Photo by the author

cobble that had been worked, along with a single flake which may have come from a polished greywacke adze. In addition, the assemblage included a flake of dolerite and piece of basalt, both derived from polished adzes. Thus at least two, and possibly as many as four, different adzes (if the greywacke and pounamu flakes are included) were used at this shelter. Flakes from basalt and greywacke adzes were also observed at Killermont No.2 (Bristow et al. 1990). A broken adze recorded from site H38/5 on the Pukaki River (Trotter 1969) was not among the Canterbury Museum collection.

The only other unusual rock type recorded was a single piece of quartzose fine sandstone, from Lake Tekapo site I37/2, which had been smoothed on one side and along part of an edge. It could have been used in the grinding/polishing or re-sharpening of slate knives. This sandstone might have come from a sliver of Pliocene sediments mapped west of Lake Tekapo (Cox and Barrell 2007), or alternatively from the Hakataramea valley to the east.

Discussion

Although the moa-hunters in the Mackenzie Basin clearly relied on the use of tools made from local stone materials, it is evident they also needed to bring other items (e.g. adzes) with them from elsewhere. This provides us with some indication of the wider connections of these people,

and where they may have travelled from.

It is possible all of the silcrete was procured from the Grays Hills quarry on the eastern side of the basin (Moore et al. 2020), but some could also have been obtained from other sources in the Waitaki valley (e.g. Otekaieke), or even from quarries in Central Otago (Hamel 2001). From the presence of a single core at site H38/5 it could be inferred that suitable flakes were produced on an as-required basis on occasions, although larger silcrete blades were undoubtedly also being carried.

There is no clear indication whether the slate knives or ulu were produced locally or had been brought in as finished tools from elsewhere, though the pieces of grey argillite found at Lake Tekapo (I37/2) and the Pukaki River (H38/5) perhaps suggests there was some attempt to manufacture ulu from local stone, or at least re-sharpen them. In addition to quartzose sandstone, coarse-grained schist would have been quite suitable as a grinding material. According to Anderson (2003: 158), ulu were most likely used for cutting meat and scraping skins.

The presence of red argillite at four sites, including at least two pieces that had been intentionally ground, indicates there was also an attempt to use this local material, possibly for ulu. This is interesting, because the use of red argillite elsewhere in Canterbury seems to have been mainly for non-utilitarian purposes (Moore 2021b). Whether there

was any particular cultural significance (because of the red colour) attached to the use of this material in the Mackenzie Basin requires further research.

Porcellanite was almost certainly obtained from the Bremner quarry site (H40/2) in the upper Manuherikia Valley, about 30 km south of Ōmarama. This is the largest known source of porcellanite in Otago (Hamel 2001, Gillespie 2020). The stone is of variable colour but described as being predominantly light greyish purple (Heritage New Zealand 2018) or pale lavender (Gillespie 2020). There is also some yellow material.

As to where those engaged in hunting moa in the Mackenzie Basin actually came from, one possibility, based on the presence of porcellanite at several sites, is that some travelled from Central Otago, via the Manuherikia Valley and Ōmarama Saddle, which could explain the location of the Killermont sites. It seems more likely, however, that the main route was via the Waitaki valley, given the large number of rock shelters in its upper reaches. Certainly, the Kaikōura chert and obsidian found at Shepherds Creek must have been brought in from the coast, presumably from one or more of the large, semi-permanent settlements in South Canterbury or North Otago, such as Pareora or the Waitaki River mouth.

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Rediscovery of Pareora Rock Art Sites, First Records and Analysis

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This article is written to mark the recent centenary of the rediscovery of significant rock art drawings at archaeological sites J39/1, J39/2 and J39/17 in the Pareora catchment. In 1921, Benjamin Evans and his young sons explored Craigmores Hill, Gordons Valley and Limestone Valley in order to locate local rock drawings. They located drawings of three moa with a seal (J39/1), a headless dog (J39/2) and three birdmen with a fish (J39/17). Evans immediately consulted Hugh McCully on what to do. The drawings were photographed and traced by Evans and McCully and interpreted by McCully within a now superseded pre-history paradigm promoted by Elsdon Best (1915) and Te Rangi Hiroa (1925). These first Pākehā efforts to document and analyse some of the rock art drawings in J39/1, J39/2 and J39/17 are presented here. Contemporary research findings and Ngāi Tahu perspectives provide lenses through which McCully's interpretations can be viewed. This personal commemorative account is by McCully's granddaughters who draw on historically important, unpublished images from the Evans, Hornsey and McCully family records dating from 1921 onwards.

Keywords: birdmen, Evans, Hornsey, McCully, moa, rock art

Introduction

Local Historical Context to the Rediscovery

In 1864, Alexander Mackay was appointed Commissioner of Native Reserves in the South Island and he recorded:

In Lyttelton Harbour there is a cave which formed the retreat of a small tribe [of Ngāti Māmoe]; near Ti-maru there are several, the sides of which are covered with rude images of men, fishes, &c., which in like manner afforded shelter to this unhappy people. (Mackay 1873: 45).

This brief information was repeated by White (1887: 305) and Smith (1898: 5). However, the exact locations of these rock art caves near Timaru, which were known to Ngāi Tahu in the 1860s, were unknown to Pākehā until 1921.

In 1916, American rock art enthusiast J L Elmore toured New Zealand tracing rock art and he “did a great deal to revive public interest in what the newspaper reports variously termed ‘rock drawings’, ‘pictographs’, ‘mystic symbols’ and ‘petroglyphs’” (Beattie 1918: 155). A judge of the Native Land Court (South Island) wanted to see some rock art and so Henare Te Maire (1844–1927), James Rickus and Hugh McCully, who had traced rock art with Elmore in 1916 (*Timaru Herald*, 4 October 1916: 9), accompanied the judge (Beattie 1918: 155; *Timaru Herald*, 18 January 1916: 4).

No Pareora rock art sites were visited by the judge's inspection party even though, according to Beattie (1918: 155), Henare Te Maire knew of the existence of rock art sites in the Pareora catchment at the time. Why he did not take the judge's party to the rock art sites in Craigmores Valley (Valley of the Moa) or Frenchmans Gully (Te Manunui) is unknown. And so, until 1921, the general public and ethnologists like William Henry Skinner (*Ashburton Guardian*, 2 May 1918: 3), continued to eagerly await:

... the discovery of the old time artists' delineation of Dinornis, rude maybe, but drawn by one who had actually taken part in the stalking of the giant bird, and had assisted at the killing and had partaken of the feast that followed.

In 1921, Benjamin Evans and his young sons located three such delineations of moa about 5 km in a direct line from where they lived (Fig. 1).

Labels and Interpretations

A century ago, no official register of archaeological sites and no commonly accepted recording system existed. On first sighting the rock art in Craigmores Valley and Frenchmans Gully in the Pareora catchment in 1921, Ben Evans and Hugh McCully applied various names to the drawings at sites now having New Zealand Archaeological Site Recording Scheme reference numbers J39/1, J39/2 and J39/17.

Evans and McCully referred to the rediscovered rock art sites by location (e.g. Frenchmans Gully [J39/17] and Craigmores Valley [J39/1 and J39/2]), or by their perceptions of the drawings' subject matter (e.g. a headless dog [J39/2], a seal with three moa [J39/1], and birdmen with a shark or fish [J39/17]). Henare Te Maire also applied subject matter descriptors such as birds, reptiles, men and fishes to refer to rock art motifs (Beattie 1918: 155). These subject matter descriptors continued to be used for decades by Henry Devenish Skinner (1933: 193, 195), Roger Duff in the late 1940s (*Fieldbook* 2: 50–55) and Tony Fomison (1969: 138).

What cultural messages are encoded in rock art drawings is unknown. Pohio (2019: 96) explains that “due to the loss of cultural memory caused by our colonial history, it is difficult to be definitive as to what they represent”.

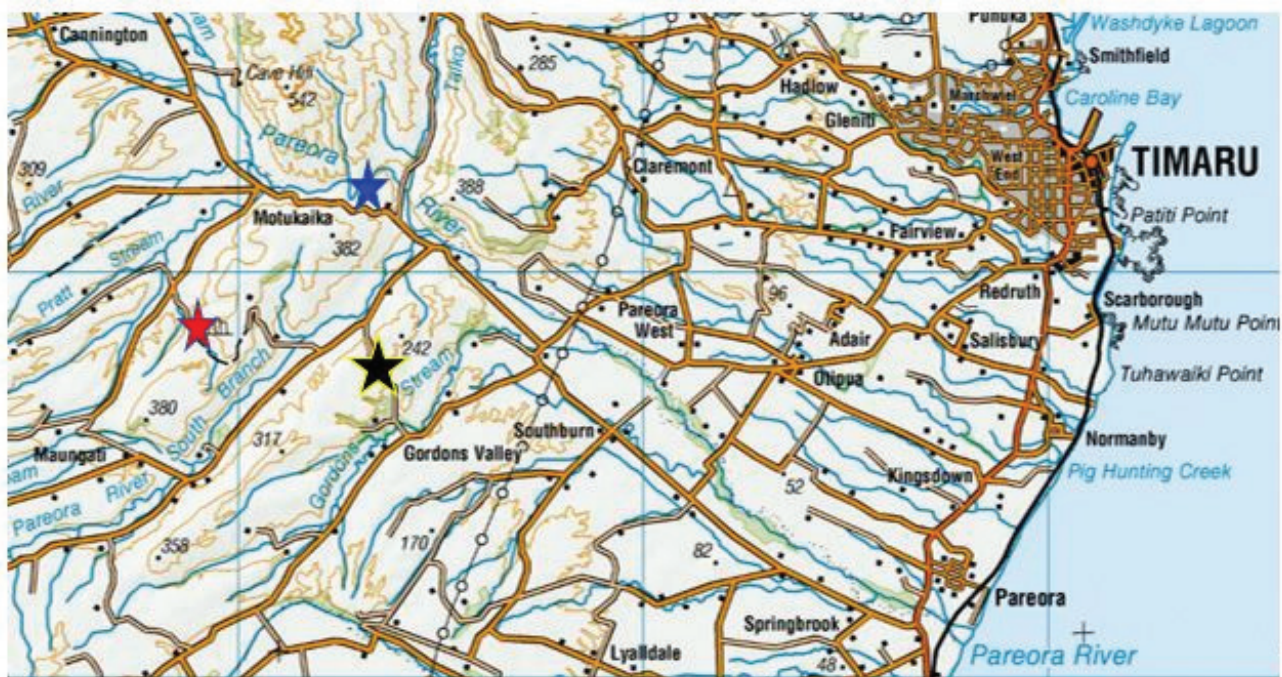


Figure 1. Map of Pareora catchment. Scale: 10 km grids. The red star marks the location of J39/1 and J39/2 on Craigmore Station. The black star marks the site of J39/17 in Frenchmans Gully Road. The blue star marks Ben Evans' farm. This work is based on/includes Toitū Te Whenua Land Information New Zealand data which are licensed by Toitū Te Whenua Land Information New Zealand for re-use under the Creative Commons Attribution 4.0 International Licence. Image taken from <https://www.linz.govt.nz/products-services/maps/new-zealand-topographic-maps/topo250-map-chooser> [accessed 18 March 2023]

The authors use the labels moa and fish/shark because the subject matter is reasonably apparent. They apply the labels headless dog, seal and birdmen to other drawings, not because that is what is conclusively represented or encoded, but because of the long history of the application of these labels to these motifs.

Pohio (2019: 96) distinguishes between “drawings (made with charcoal) and paintings (in ochre pigment and shark oil)”. The authors use the term drawings simply because Trotter and McCulloch (1971: 30) and Fomison (1962: 119) do so. Paintings may be a more appropriate term because of the penetration of pigment colours into small indentations on the limestone surface. This penetration has ensured the survival of motifs now invisible to the naked eye because of fading or erosion by rain. Spraying with water reveals them, but can encourage salt extraction and is not recommended (Brian Allingham pers. comm. May 2023).

Updating the 1921 Pre-history Paradigm

When the Pareora drawings were rediscovered in 1921, a paradigm of New Zealand's pre-history quite different from today's prevailed among ethnologists. C¹⁴ had not yet been used to date archaeological objects or events. When McCully first viewed and analysed the moa drawings, he subscribed to Te Rangi Hiroa's (1925: 38, 53) now superseded pre-history paradigm that New Zealand had been settled “a fairly long time before 1150 AD” by “at least two distinct waves of pre-Toi peoples”, and possibly even before Kupe arrived in 950 AD. McCully did not know that Early Eastern Polynesians (moa-hunters) apparently first arrived in the North Island around 1250–75 AD and later in the South Island around 1280–95 AD where moa-hunting commenced

c. 1300 AD (Bunbury et al. 2022: 1). This shortened C¹⁴ dated chronology of arrival “disarticulated relationships assumed hitherto between phases and processes” (Anderson 2016a: 3).

By 1345–65 AD, Māori had penetrated the South Island's southern hinterland and human coprostanol entered the sediments of lakes Diamond and Patrick in the Wānaka-Queenstown area (Argiriadis et al. 2018). The “first and most devastating phase of deforestation” commenced and proceeded until 1450 AD, and “when moa became extinct about 1450 a re-orientation of subsistence economy toward fishing and foraging was necessary” (Anderson 2016a: 5) in the southern regions of the South Island. Varves in Lake Ōhau indicate that, shortly after their arrival, the climate in southern South Island regions became cooler between 1385 AD and 1710 AD because of a shift from “westerly (Zonal) conditions to predominately southerly (Trough) conditions” (Roop 2015: 109, 113).

In 1921, it was thought that between 19 (Richard Owen from 1839 on) and 26 (Frederick Hutton in the 1890s) species of moa had once existed. The Evans children, who collected great quantities of moa bones (Teviotdale 1932: 83), did not know that DNA analysis would reveal that only nine moa species had existed and been hunted to extinction (Bunce et al. 2009: fig. 1). These K-selected birds apparently lived in stable populations at or near the carrying capacity of the landscape which was between 2.02 to 9.66 birds per km² (Latham et al. 2019: 1). Around four species were available on the Canterbury Plains while in the Mackenzie Country six or seven species could be caught (Latham et al. 2019: fig. 2(A)).

McCully (1957) thought the moa-hunters remote ancestral origins lay in India, not Taiwan (Howe 2005), and that they then traversed Malaysia/Indonesia. DNA research shows that “96 per cent of Polynesian mtDNA has an Asian origin, as [does] one-third of Polynesian Y chromosomes” and the remaining two-thirds of Y chromosomes are from New Guinea and nearby islands (Anderson 2016b: 20). Having voyaged as far as Samoa-Tonga, C¹⁴ dates indicate Polynesians settled other Pacific archipelagos in two phases, 1025–1120 AD and 1150–1280 AD, New Zealand being reached during the second phase (Wilmshurst et al. 2010).

Formal study of archaeology as a discipline only commenced in New Zealand in 1919 with Henry D Skinner’s appointment to Otago Museum and McCully’s generation did not have the benefit of such training. McCully drew upon the mainstream authorities of the time (Best 1915; Te Rangi Hiroa 1925) and analysed the moa drawings according to the now superseded pre-history paradigm they advocated.

Location and Description of Rock Art Sites J39/1, J39/2 and J39/17

Rock art sites J39/1, J39/2 and J39/17 are located in the 539 km² Pareora catchment south of Timaru, in South Canterbury (Fig. 1). Several other rock art sites have been found since these were located in 1921. J39/17 and J39/2 contain other drawings but only one composition from each site is discussed here. J39/1 and J39/2 are located in the Valley of the Moa (formerly Craigmere Valley). J39/17 is in Frenchmans Gully Road, a former ara tawhito (traditional pathway) between Gordons Stream and the Pareora River South Branch. The Frenchmans Gully

rock art site was re-labelled Te Manunui (great bird) in 2007 because Ngāi Tahu “believe the bird figure ... represents New Zealand’s now extinct pouākai or Haast eagle (*Aquila moorei* previously *Harpagornis moorei*)” (<https://www.heritage.org.nz/list-details/7826/Te-Manunui-Rock-Art-Site> [accessed 23 May 2023]).

A detailed survey of the Pareora catchment was completed just before 1921 by Gudex (1918: 257) who described the limestone anticline that forms Craigmere Hill and the asymmetrical, steeply dipping Valley of the Moa on its northwest side (Fig. 2). Sites J39/1 to J39/5 and J39/8 are situated partway up the distinctive limestone bluffs edging the Valley of the Moa. Michael Gudex (1887–1964), who was Hugh McCully’s (1878–1967) nephew, reported that within the catchment there were “numerous limestone caves, which sometimes contain bones of extinct birds, such as *Harpagornis*, *Cnemiornis* and *Dinornis*” (Gudex 1918: 249), but he made no mention of sighting any rock art treasures in these caves.

J39/1 is a small, south-facing limestone niche situated on a steep slope, about 20 yards up-valley from J39/2, according to Roger Duff (*Fieldbook 2*: 54). On its limestone surface are life-like drawings of three moa all outlined in red ochre (haematite) and partly in-filled with black lines. A seal, not outlined in finely painted red, separates the middle moa from the right-side one. The right-side moa measures 80 cm on the diagonal (Brian Allingham pers. comm. 2021). Above and to the right of the right-side moa is a small human figure outlined in red ochre which Roger Duff (*Fieldbook 2*:



Figure 2. Hugh McCully’s 1921 photograph of the Valley of the Moa looking up-valley. He framed this photograph so that Birdsheed Rock (left, centre) pointed at J39/1 and J39/2. Remnants of podocarp forest cling to the limestone bluff. MS-582-F-13-001 reproduced with permission of Hocken Collections, Uare Taoka o Hākena, University of Otago

55) described as “russet”. McCully (1960) noted it, but did not transfer it to his tracing scroll. Allingham thought that:

... given the generally steep ground at this site it is unlikely to have been occupied much beyond those who executed the art-work. Far more effective and comfortable shelters occur in very close proximity, where occupational evidence is clearly defined. Allingham (2014: 4).

J39/2 is just down-valley from J39/1, is larger, north-facing, and capable of sheltering several people. It contains multiple rock art drawings and the cave floor and immediate surrounds have been excavated (McCulloch 1984; Allingham 2014). Near J39/2, Allingham (2014: 3, 5) unearthed “cultural material of Māori origin” and bones which appeared “to have cultural associations”. Heat-broken greywacke umu stones, some stone flakes produced during tool manufacturing and a piece of red ochre were found (Allingham 2014: 5). In addition, Allingham found a few *Megalapteryx didinus* (Upland moa) green egg shell fragments.

J39/17 (Te Manunui) is a springs-rich limestone shelter (Fig. 3) located in Frenchmans Gully Road; this ara tawhito first traversed blue clays and then limestone (Gudex 1918: 252). Springs once filled the water trough in Figure 3. Another spring feeds a small stream flowing from the base of the rock art shelter and a third spring rises across the road on the opposite valley wall. The rock shelter contains several drawings other than the unique composition of three birdmen and a shark/fish and is capable of sheltering several people – but there is no evidence the site was occupied (Brian Allingham pers. comm. May 2023). Orchard-like groves of *tī kōuka* (*Cordyline australis*) grow along the former ara tawhito between Gordons Stream and the Pareora River South Branch.

Moa Fever and the Quest to Locate Rock Art Sites

The first Benjamin Evans (1841–1918) bought 50 acres along the Pareora River in 1870 and by 1918 the second Benjamin Evans (1880–1970) (Fig. 4A) owned 1,000 acres (Evans 1975: 202, 211). The latter’s sons, Lindsay, Alwynne and historian Allister (Fig. 4B), were “infected with moa fever” (interview Gary Evans 14–15 February 2023) because they had found rock art and numerous moa bones on their farm. A quest to locate some of the catchment’s other rumoured rock art sites was embarked upon. They made:

... a detailed survey of all the limestone areas of Craigmere, Gordons Valley and the Limestone Valley in Taiko, where they discovered all the shelters containing Moa Hunter art, in the form of black drawings on the rock. These finds were kept secret, because of the destruction which had already taken place of the drawings at Hanging Rock, on the Opihi River. However, Hugh McCully was notified about these finds.... (Evans 1975: 1).

Ben Evans consulted Hugh McCully (Fig. 5) because of his well-known interest in rock art (*Timaru Herald*, 4

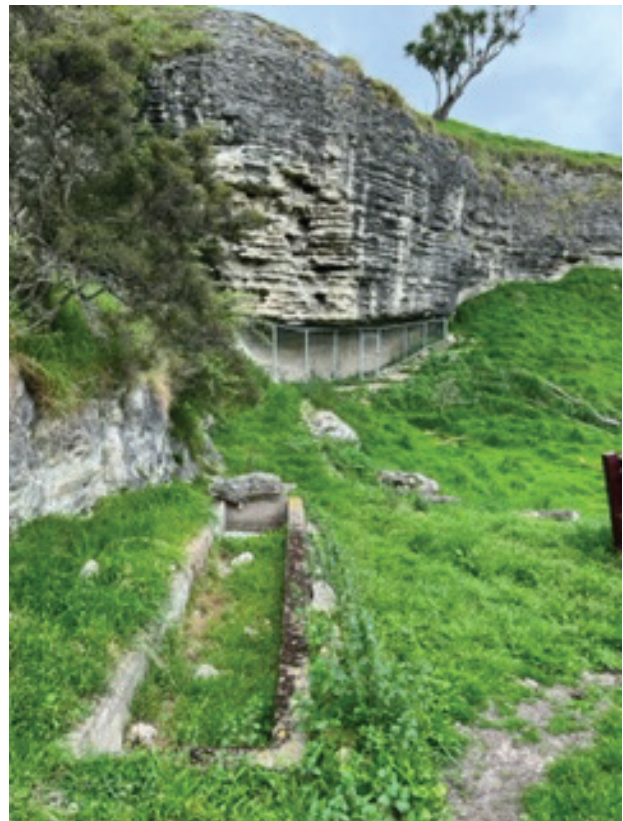


Figure 3. Te Manunui rock art site in 2022. Photograph by Rosanna McCully McEvedy. All Rights Reserved

October 1916: 9) and pro-protection stance. At a time when limestone outcrops containing rock art were being mined, and drawings defaced and excised, McCully took a reporter around some South Canterbury rock art sites and the reporter wrote the drawings “ought to be ‘tapu’ to present and future generations” (*Timaru Herald*, 10 July 1917: 3). In 1951, the South Canterbury Historical Society (SCHS) visited some rock art sites (SCHS 1991: 32), and McCully was still complaining about the “enterprising American” Elmore who “chiselled out” rock art drawings because “out of [their] setting the value is lost” (*Timaru Herald*, 18 January 1951: 4). McCully understood that the landscape, the rock art in it and the people who made it were bound together. Ngāi Tahu archaeologists believe that “rock art is more than just pictures – it’s a vital window on indigenous peoples’ relationship with the whenua [land]” (*Te Karaka*, 2017: 38).

In 1921, McCully immediately appreciated the artistic merits and archaeological significance of the moa drawings. Canterbury and Otago Museums were advised. In line with Best’s (1915) and Te Rangi Hiroa’s (1925) now discredited (Simmons 1969) Kupe-Toi-Great Fleet paradigm of New Zealand’s pre-history, McCully thought “moa-hunters” were Te Rangi Hiroa’s (1925: 31) “tangata-whenua” who possibly arrived before Toi in 1150 AD and definitely arrived several centuries before the Great Māori Fleet of 1350 AD. Because Māori did not arrive until 1350 AD, in this superseded version of New Zealand’s pre-history, McCully thought the moa drawings in J39/1 were pre-Māori and therefore non-Māori, but not necessarily non-Polynesian. All his

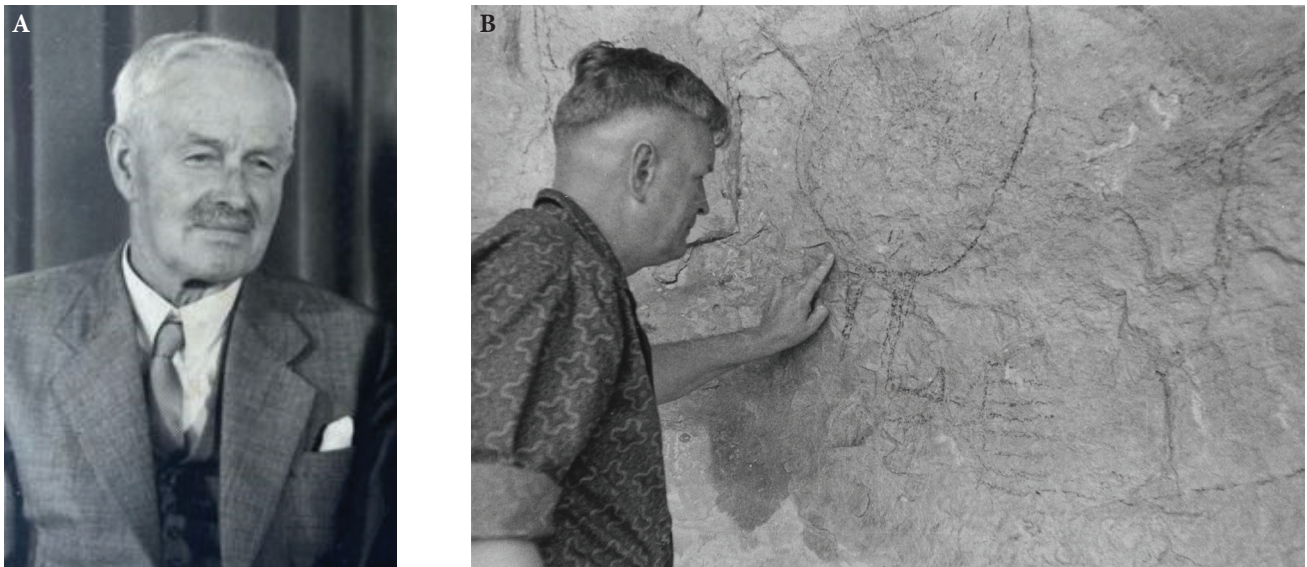


Figure 4. A. Benjamin Evans (1880–1970). B. Allister Evans (1911–1977), son of Ben Evans, c. 1959. Photographs reproduced with permission of Gary and Peter Evans. All Rights Reserved

life McCully believed there was a “moa-hunter period before the Maoris came to New Zealand” (*New Zealand Free Lance*, 2 February 1958: 17).

1921 Tracings of the Three Moa

The Evans family and McCully immediately traced the moa drawings (Evans 1975: 1). At J39/1, McCully traced the moa on to several sheets of butter (baking) paper, then at home put the jigsaw together, flipped it over, heavily hatched the outline in soft lead pencil, flipped the jigsaw right-side up on to calico and traced around the outline, thereby producing a carbon copy (Fig. 6). McCully filled in each moa with short, disconnected, black parallel lines to indicate the patchy nature of the in-fill but did not outline them in red. The Evans’ scroll (Fig. 7) was produced in a similar manner to McCully’s.

On 18 March 1931, McCully took David Teviotdale (Diary entry 18–25 March 1931) (Fig. 8) to see the moa drawings and to “call on a Mr Evans ... [whose] boys it was who discovered the moa paintings”. Teviotdale wrote the charcoal in-fill on the drawings appeared to be “dotted in” because it had only caught on the higher limestone surfaces within the drawings (Fig. 9). At the same time, “Mr. Evans showed me the bones of some twenty moas his sons had taken from a fissure in the rock on his farm. With them were bones of *Aptornis* [extinct adzebill] and *Cnemiornis* [extinct goose]” (Teviotdale 1932: 83).

In 1932, Teviotdale asked McCully to supply a photograph to illustrate his article on The material culture of the moa-hunters in Murihiku in which he definitively linked ‘moa-hunters’ and Māori “racially and culturally” to Polynesia (Teviotdale 1932: 119). McCully supplied a photograph of the Evans’ scroll and so Teviotdale (1932: 104) illustrated his article with a drawing (Fig. 10) based on the now lost Evans’ scroll. He solidly filled in all three moa even though he had noted in his diary the filling was “dotted in” (Fig. 8).

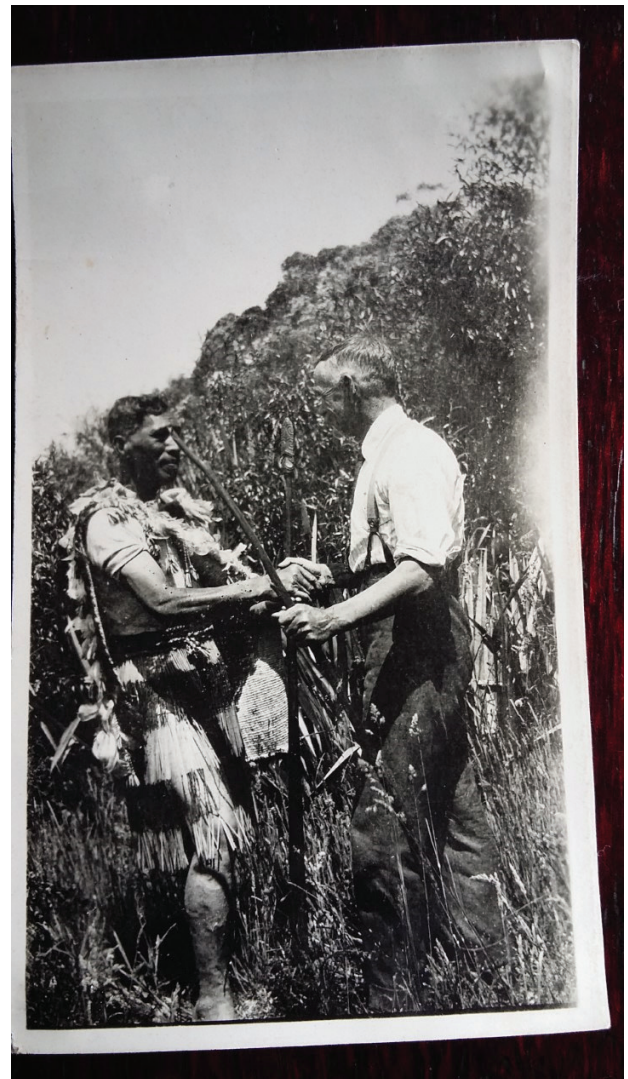


Figure 5. Hugh McCully (right) and Te Rangi Hiroa (left) meet in late January 1926. Eight months later, in spring 1926, McCully identified the 150-acre Waitaki moa-hunter necropolis site on J B Chapman’s farm. In July 1927, Te Rangi Hiroa left New Zealand to take up a position overseas (*Timaru Herald*, 4 July 1927: 3). Seymour collection. All Rights Reserved



Figure 6. Hugh McCully’s 100-year-old moa scroll held by granddaughters Marion Seymour (left) and Anthea McCully (right). Photograph by Rosanna McCully McEvedy, 2019. Seymour Collection, All Rights Reserved

McCully’s Views on the Moa Drawings

McCully (1960) thought the three moa depicted in J39/1 were at rest, stationary prey accurately depicted by an observant hunter-artist in a “camera” snap-shot:

Bird watching for pleasure may be an innocent and pleasant pastime but as practised by the Moa Hunter it boded ill for the bird. The Moa Hunter did not have a camera but in a rock shelter in Craigmores Valley ... he portrayed a group of Moas in a rest or sleep posture

The drawing is a good example of Moa Hunter art. The spur on the leg of the complete bird was a pleasing detail [Fig. 11].

The small figure [not depicted in Figs 6 and 7] is part of the drawing. In other drawings it appears in different forms, its purpose not clear

The drawings depict Moas in a rest or sleep posture – the posture of the birds prior to the arrival of the hunter [Figs 12A and 12B] As far as can be seen at present that is what the artist had in mind when he made the drawing.

In addition to daytime snaring, clubbing and ambushing of moa, McCully thought moa-hunters killed roosting moa at night. “No chasing of relays of men are suggested” in J39/1 (*Timaru Herald*, 18 January 1951: 4). Moa were



Figure 7. McCully’s 1921 photo of the now lost 1921 Evans’ scroll. Photograph by Rosanna McCully McEvedy 2019. Seymour Collection. All Rights Reserved

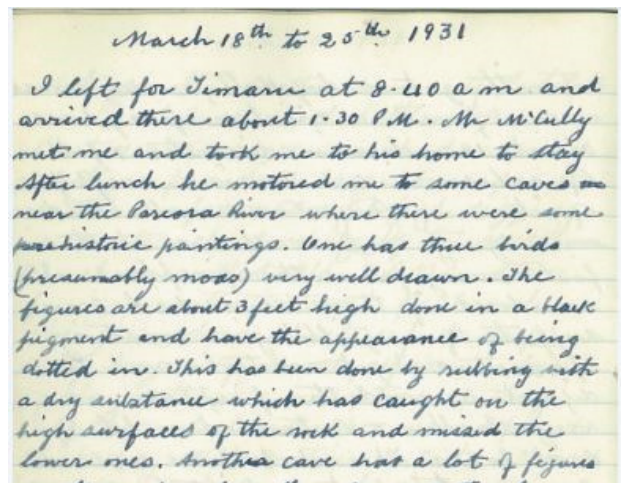


Figure 8. Extract from David Teviotdale’s diary entry 18–25 March 1931 recording his visit to Craigmores Valley with McCully. Reproduced with permission of Hocken Collections, Uare Taoka o Hākena, University of Otago

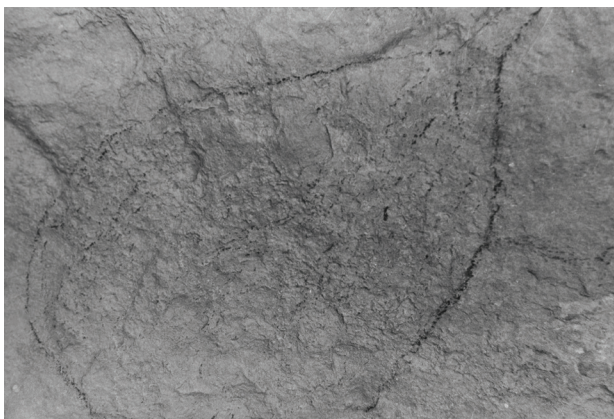


Figure 9. Middle moa's body showing its relatively dense red haematite outline and patchy black in-fill. Photograph by Allister Evans. All Rights Reserved

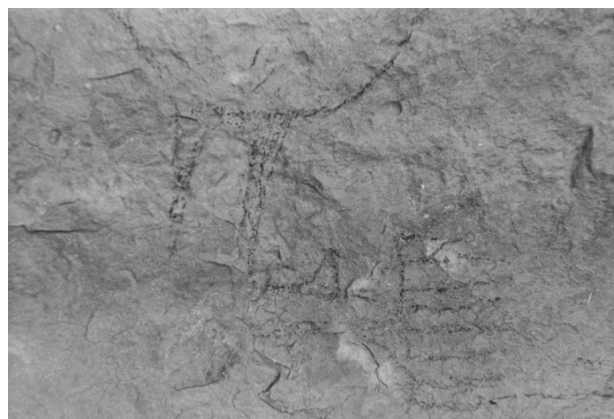


Figure 11. The spur on the left leg of the middle moa which so pleased Hugh McCully. Photograph by Allister Evans c. 1959. All Rights Reserved



FIG. 1.

Painting on rock-face of tributary of the Pareora River, near Timaru.

Figure 10. Teviotdale's illustration based on McCully's photograph of the 1921 lost Evans' scroll. Courtesy of the Editor, *Journal of the Polynesian Society*

flightless, could only roost on the ground, and so were easy to surround and kill when asleep. Allingham (2014: 1) is of the view that:

There seems to be little doubt that the moa group were painted by someone who observed these birds alive, which would make this work date from around 400–500 years ago at least, and possibly much older.

The Headless Dog in J39/2

In 1922, McCully took Arthur George Hornsey (Fig.13) to the Valley of the Moa and Hornsey traced the headless dog in J39/2. Hornsey transferred his original tracings onto art paper, not calico, and photographed them in 1922. The authors developed seven of his old negatives in 2019, including one of the headless dog (Fig. 14). McCully first met Hornsey in 1907 when McCully joined the South Canterbury Acclimatisation Society. Both were members of the SCHS from its establishment in 1941, and were on its committee in 1945 when Roger Duff was asked to report to the SCHS on 15 or so rock art sites in South Canterbury and make recommendations about protecting them. Hornsey and McCully remained life-long friends.

In October 1945, Roger Duff (*Fieldbook* 2: 53–55) inspected Hornsey's tracings, recorded Hornsey had not traced the moa in J39/1, and accepted Hornsey's tracing of the headless dog as "adequate". Duff recorded the dog

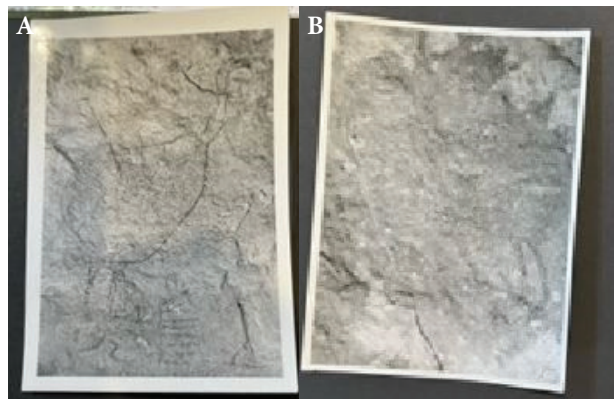


Figure 12. Roosting or resting moa. A. The middle moa. B. The right-side moa. Its haunches and neck were barely discernible to the naked eye in 1959 and have faded since then. Photographs by Allister Evans c. 1959. All Rights Reserved

was outlined in a "rusty yellow shade" and was headless because of accidental flaking of the limestone surface at its neck.

Dating Rock Art

Henare Te Maire used colours to distinguish older from younger rock art and told Beattie (1918: 148, 149) "only the designs done in black are Waitaha work" and the red drawings "were done many generations later than the black, and were the work of Kati-Mamoe, who simply copied the Waitaha figures". O'Regan (2016: 17) notes the "vast majority" of rock art is executed in black. In 1959, Fomison was commissioned by the South Canterbury Regional Committee of the New Zealand Historic Places Trust to survey 185 rock art sites and report on what protection and sign-posting was needed (Fomison 1960: 14). McCully was a member of that Trust committee and accompanied Fomison to some sites (Fig. 15). Like Henare Te Maire, Fomison (2013: 83) noted "a greater use of red" occurred in later Classic Style rock art than in Early Style drawings, and he proposed that Early Style rock art was characterised by certain design features such as the "internal blank", particular motifs such as "dog-men, seal-men and bird-men", "ancestor compositions" and compositions where different subjects, fully drawn, were linked to each other (Fomison 2013: 61–67). Fomison (2013: 68–72) thought



Figure 13. Arthur George Hornsey c. 1951. Hornsey collection. All Rights Reserved



Figure 14. Hornsey's 1922 unpublished tracing of the headless dog in J39/2. Hornsey collection. All Rights Reserved

the headless dog, moa and birdmen were among some of the earliest rock art drawings.

Bain (1982: 46, 54–55) conducted a computer-based discriminant analysis “to test Fomison’s chronological sequence” of three styles (“Early”, “Classic” and “European Contact”) and concluded “Fomison’s temporal sequence appeared to be quite a realistic assessment of the drawings” (Bain 1982: 98). But Fomison’s use of stylistic variability to construct a relative chronology of rock art is not fully accepted; O’Regan (2016: 17–19) canvasses authors who interpret the stylistic variations in other ways.

In 2019, attempts to date rock art using C^{14} were compromised by Theo Schoon’s over-crayoning of rock art motifs and this led to “unexpectedly early” dates quite incongruent with the timing of Māori settlement of New Zealand in the thirteenth century (O’Regan et al. 2019). If the C^{14} dates of arrival proposed by Bunbury et al. (2022) are accepted, then rock art in the South Island is no older than around 743 years.

Te Manunui (the Birdmen)

In 1921, McCully and Evans traced the birdmen composition in J39/17 and photographs were taken.



Figure 15. Hugh McCully (left), Tony Fomison (centre) and Mrs Airini Woodhouse (right) at Hazelburn, 1959, at the outset of Fomison’s survey of 185 rock art sites which allowed him to construct his “Early”, “Classic” and “European Contact” chronology of rock art. Photograph by Langford Studios, Timaru. South Canterbury Museum ID 2014.107.327. All Rights Reserved

McCully’s birdmen yard-square (91.4 cm by 91.4 cm) scroll went missing around 1963. The Evans’ scroll still existed in 1970 but is now lost (Gary Evans interview 14 February 2023). However, in 1933, Henry D Skinner (1933: 193) wrote a series of articles for the *Journal of the Polynesian Society* on Māori amulets and illustrated his third article with a tracing (Fig. 16) of the birdmen taken off a photograph supplied by Hugh McCully. McCully’s early photograph is still in Otago Museum and has tracing indentations on its surface. An early Evans’ photograph exists (Fig. 17) but the shark’s tail is cut off. H D Skinner (1933: 193) thought:

Owing to its superposition I believe that the drawing of the fish is of later date than the three other figures; it may, therefore, be disregarded in the present discussion. The three other figures are apparently bird-men, the bird element being more strongly emphasized than is usual. It may be suggested that here we have Tane represented specifically as guardian and god of birds. If there were any evidence of the existence among the Maoris of a Tane priesthood these drawings might be held to represent masked priests; but there is no evidence of such a priesthood in New Zealand or anywhere else in Polynesia.

Theo Schoon (*Otago Daily Times*, 13 September 1947: 9) thought pre-European Māori rock art had a spiritual or magical purpose but Fomison (2013: 85) dismissed this idea, stating the meaning and function of rock art were unknown. Trotter and McCulloch (1971: 75) noted that birdmen and birds were “commonly classed as two separate forms” but dismissed this distinction and claimed they were “of one order”.

Restoration

In 1923, McCully noticed the birdmen composition was deteriorating and restored it with Indian ink. On 2 October 1945, he admitted to Duff he had restored it (Duff, *Fieldbook* 2). Fomison (1969: 138) noted that McCully’s retouches were done in a manner that allowed “traces of the original colouring [to be] still visible

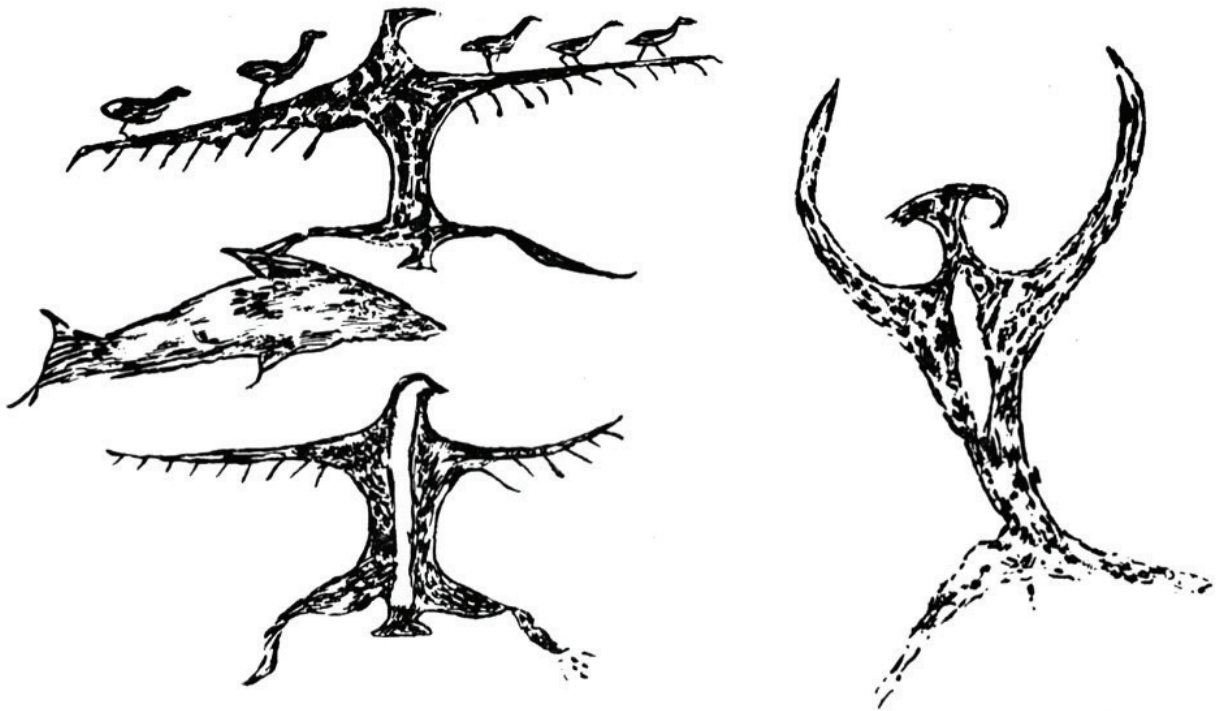


Figure 16. Henry D Skinner's illustration traced off McCully's early photograph of the birdmen. Courtesy of the Editor, *Journal of the Polynesian Society*. All Rights Reserved

beneath both the ink on the 'birdman' and on the birds". McCully did not completely obliterate the original rock artists' colouration or change their designs. Duff (*Fieldbook 2*) recorded McCully left another bird figure on the "roof [ceiling] of the shelter", similar to the one on the right in Figure 16, completely untouched.

Subsequent finds of small birds on the outstretched wings of a larger bird at Hazelburn (South Canterbury) and Ngapara (North Otago) confirm the accuracy of retouching of the birdman group at Frenchmans Gully (Brian Allingham pers. comm. May 2023).



Figure 17. Evans' early 1920s photograph of birdmen. Gary Evans collection. All Rights Reserved

McCully set out his approach to restoration in his letter of 22 September 1946 to William Vance of the Department of Internal Affairs, Timaru: “Restoration merely means restoring [drawings] to their original clearness and nothing more”. Advocating a patch-up approach to conservation to address intermittent damage caused by sunlight, lichen, rain or flaking, McCully (22 September 1946) wrote, “I would rather call a doctor than let the patient die of neglect”. He did not want drawings to degrade beyond recognition, as has now occurred with some previously recorded ones (O’Regan 2016: 16).

Heritage New Zealand states, “The rock art at Te Manunui is clearly visible, in good condition and contains complete figures” (<https://www.heritage.org.nz/the-list/details/7826> [accessed 23 May 2023]). McCully (letter dated 22 September 1946) wrote “for the full appreciation of a work of [rock] art it should be seen [from] as far as possible in the setting for which it was created”. McCully wanted to maintain the link between visibility, whenua (landscape) and subject matter (motif) and, rightly or wrongly from today’s perspective, attempted to keep the visibility of the birdmen composition alive when he applied Indian ink to it in 1923.

Theo Schoon’s restorations were qualitatively different. He used “large grease [sic] crayons”, “was inaccurate”, “did not attempt to cover mark for mark”, failed to recognise when drawings were superimposed on each other and “often amalgamated a sequence of drawings over-lying one another into one incomprehensible image” (Fomison 1987: 159–160). Allingham, who surveyed and inspected over 600 rock art drawings for the Ngāi Tahu South Island Māori Rock Art Project (Low 2015: 28), confirmed that when Schoon retouched rock art motifs he often redesigned them mostly through omissions to meet his personal aesthetic bias and that McCully’s restoration of the birdmen respected the original artists’ designs (Brian Allingham pers. comm. May 2023).

Art, Not Doodles

McCully admired the two koru-like whorls formed by the blank spaces between the head, neck and wings of the 33 cm high birdman on the right (Fig. 16). The authors recall McCully holding up his calico birdmen scroll and discussing features on it in the late 1950s. McCully thought these whorls were intentionally incorporated design features. Taylor (1952: 92) recorded that:

During January 1931, Professor Speight and the writer’s friend H. McCully inspected the various sites of moa hunters’ camps, and places with rock paintings. Some of the places were Waitaki Mouth, Kakahu, Otaia [sic], Gray Hills [sic], Temuka and Upper Pareora.

McCully took Robert Speight to J39/1, J39/2 and J39/17. Speight thought “the drawings were like the work of a child” (*Nelson Evening Mail*, 29 January 1931: 11). Despite having opposing opinions about the artistic merit of rock art, Speight and McCully remained cordial

throughout their five-day tour (*Nelson Evening Mail*, 29 January 1931: 11).

Henare Te Maire told Beattie (1918: 155) the rock art drawings “were not aimless objects, but recorded Waitaha history, and were drawn when they came to the South Island. They represent men, and also the birds, fishes and reptiles they met on their voyages”. McCully thought the rock art drawn by moa-hunters (Early Eastern Polynesians) followed a set of artistic principles which they brought with them to New Zealand and he proposed that some rock art drawings communicated ancient cultural information and experiences acquired during their ancestors’ journey out of “the forest of India, and the East Indies” (McCully 1957). McCully thought moa-hunters and Māori had distant Southeast Asian origins, but moa-hunters had reached New Zealand earlier than the Great Fleet Māori settlers, and their traditions entered Māori culture and “survive today in countless Maori stories which have become localised in New Zealand” (McCully 1957). In 1957, he wrote, “I regard the drawings as tradition rendered pictorially”. He believed New Zealand’s rock art drawings had artistic merit, were of archaeological importance, conformed to culturally derived aesthetic principles, and should be respected. “They are examples of primitive art comparable with those of Spain and France, notwithstanding differences in style,” he said (*Timaru Herald*, 18 January 1951: 4).

In the early twentieth century, rock art was often judged according to perceived artistic merit. Elmore thought Bushman (San) rock art was “of a much higher order than the Australian” (*Press*, 20 July 1916: 10) and that Māori rock art paintings were “very crude in comparison with the rock art paintings that are found in many parts of South Africa” (*Dominion*, 1 December 1916: 8). McCully’s opinions differed from Elmore’s and those held by respected ethnologist William Henry Skinner, President of the Canterbury Philosophical Institute, who thought the then currently known “crude paintings on the rock shelters of Canterbury and North Otago” could not claim “to have the same archaeological value as those in south-west Europe” (*Lyttelton Times*, 2 May 1918: 6).

McCully also disagreed with Roger Duff (1946: 1) who reported to the SCHS that “relatively few of the drawings would be beyond the artistic powers of a pre-school European child”, were the result of “doodling” by passers-by, were “caricature human figures, fish, lizards, insects, seals and birds” lacking artistic merit, and were mere charcoal “scribbles”. McCully thought Duff’s opinion was wrong but did not pursue changing it because Duff ended up recommending that South Canterbury’s rock art should be preserved (Duff 1946: 2–5), and that was the objective the SCHS committee, which included McCully, wanted to achieve.

Final Words

This personal account of the rediscovery of the remarkable rock art drawings in J39/1, J39/2 and J39/17

by the Evans family in 1921 presents early photographs and tracings from the Evans, Hornsey and McCully families' records with the intention of supplementing information already known about these sites by archaeologists. It sets down Evans family lore about "moa fever" and presents views held by Hugh McCully (1957; 1960) who, in 1921, subscribed to Te Rangi Hīroa's (1925) and Elsdon Best's (1915) now superseded paradigm of pre-history.

The Evans-McCully archaeological relationship continued for decades after 1921. The authors end this account with a photograph taken in 1959 (Fig. 18) of Ben Evans, his son Allister and Hugh McCully at the Waitaki moa-hunter site, at Korotuaheka on the south bank of the Waitaki River. In spring 1926, McCully stood with Raniere Martene in a ploughed paddock near Te Maihāroa's former 1879 settlement on J B Chapman's farm where Chapman had ploughed up two adzes. McCully was in pursuit of adzes, not moa bones, but he picked up a bone, examined it, and realised a 150-acre "necropolis" of moa bones, moa ovens and middens lay before his eyes (Buick 1937: 163–164; McCully 1951). This was another important event in the history of archaeology.

Acknowledgements

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Hugh McCully with Tony Fomison and Airini Woodhouse. Gerard O'Regan facilitated much appreciated access to Hugh McCully's collection of artefacts in Otago Museum and showed the authors McCully's early birdman photograph. Hocken Collections are thanked for providing access to Hugh McCully's records.

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Figure 18. Hugh McCully (left), Ben Evans (middle) and Allister Evans (right) at the Waitaki moa-hunter site, Korotuaheka, 1959. Photograph by Stewart Willetts. Gary Evans Collection. All Rights Reserved

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A Re-examination of Stone Artefacts from the Weka Pass Rock Shelter

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The Weka Pass (or Timpendean) rock shelter in North Canterbury contains some of the more important Māori drawings in the South Island. Re-examination of the stone artefacts recovered from the shelter floor during excavations in 1968 revealed that the majority are composed of chert, originating mainly from the Kaikōura area and local sources. Wider connections can also be established, from other stone materials, with the North Island, Nelson-Marlborough area, West Coast, and probably mid Canterbury. Previous radiocarbon dating indicates the shelter was used at least until the sixteenth or seventeenth century.

Keywords: Māori artefacts, North Canterbury, rock shelter, stone materials, Weka Pass

Introduction

The Weka Pass rock shelter (site M33/11) near Waikari in North Canterbury, also known as the Timpendean shelter, is one of the more significant sites of its type in the South Island, and its extensive rock drawings became the subject of considerable controversy in the 1870s–1880s when Julius von Haast (1877) suggested that some of them may have been produced by Indians or Tamils (for a summary of the debate see Trotter and McCulloch 1971: 15–16). However, the site is also notable because it is one of the few shelters to have yielded a sizeable collection of artefacts, along with a wide variety of faunal material (Trotter 1972). A re-examination of the taonga (stone artefacts) was therefore undertaken to see if they could provide further insights into the activities undertaken at the site, and the wider connections of the people who occupied the shelter and created its impressive drawings.

Setting and Investigations

The rock shelter is located in the Weka Pass Historic Reserve, about 1.5 km southwest of the small settlement of Waikari (Fig. 1). It is situated on the northern side of an elongate, 100-metre-long outcrop of Amuri Limestone, oriented east-west (Fig. 2). There are at least 30 other shelters containing rock drawings that have been recorded in the Weka Pass area, though artefacts were found at only one of these (McCulloch 1968).

Julius von Haast visited the Weka Pass shelter in April or May 1876, and subsequently employed the artist T S Cousins to record some of the more obvious drawings preserved along the rear wall (Haast 1877). In February 1877, as Director of Canterbury Museum, he also instructed one of his staff, W Sparks Jnr, to undertake test excavations in the floor deposits. Five trenches were dug across the shelter at right angles to the wall. These exposed two distinct midden layers, overlain by leaf litter and pieces of rock. But Haast was disappointed in the few artefacts recovered, which consisted only of some “fragments of chert and flint”, several pieces of dark sandstone from a polished implement and a

large piece of sandstone chipped to a point (Haast 1877: 52–53).

During further excavations in 1968 (Trotter 1972), four trenches were dug across the floor also at right angles to the rock face. These revealed three distinct periods of use. At the lowest level there were some natural moa bones (*Euryapteryx geranoides*) (Worthy and Holdaway 1996), subsequently dated to 1525 ± 60 years BP. The main cultural layer was up to 25 cm thick and consisted of dark soil containing bone, shell, burnt stones, charcoal, ash, wood and artefacts. It was overlain by about 5 cm of loose limestone dust and sheep droppings with various European items.

Faunal material from the site, particularly the bird bone, has been documented and discussed by Trotter (1972) and Worthy and Holdaway (1996). Of the shell recovered, the most common species were pipi (*Paphies australis*), pāua (*Haliotis* sp.) and freshwater mussel (*Echyridella menziesii*).

Description of Stone Material

All of the stone artefacts recovered from the main occupation layer during the 1968 excavations were listed by Trotter (1972: 47) and amounted to 198 items. This included a sizeable collection (n = 127, 467 g) of “other silica materials”, which were not differentiated further, and 24 pieces of “fired clay”. There were also a few artefacts made from shell and bone, and seven pieces of pounamu (nephrite) from the upper layer. Most artefacts were recovered from Trenches 2 and 3. All items are held by Canterbury Museum, but those referred to by Haast (1877) have not been re-located.

The types of lithic materials identified in this study are listed in Table 1, along with those reported by Trotter (1972) for comparison. Altogether, 12 different rock types were recorded. These were identified with the aid of a binocular microscope. Canterbury Museum catalogue numbers are provided in the text (e.g. Canterbury Museum 2008.1150.5).

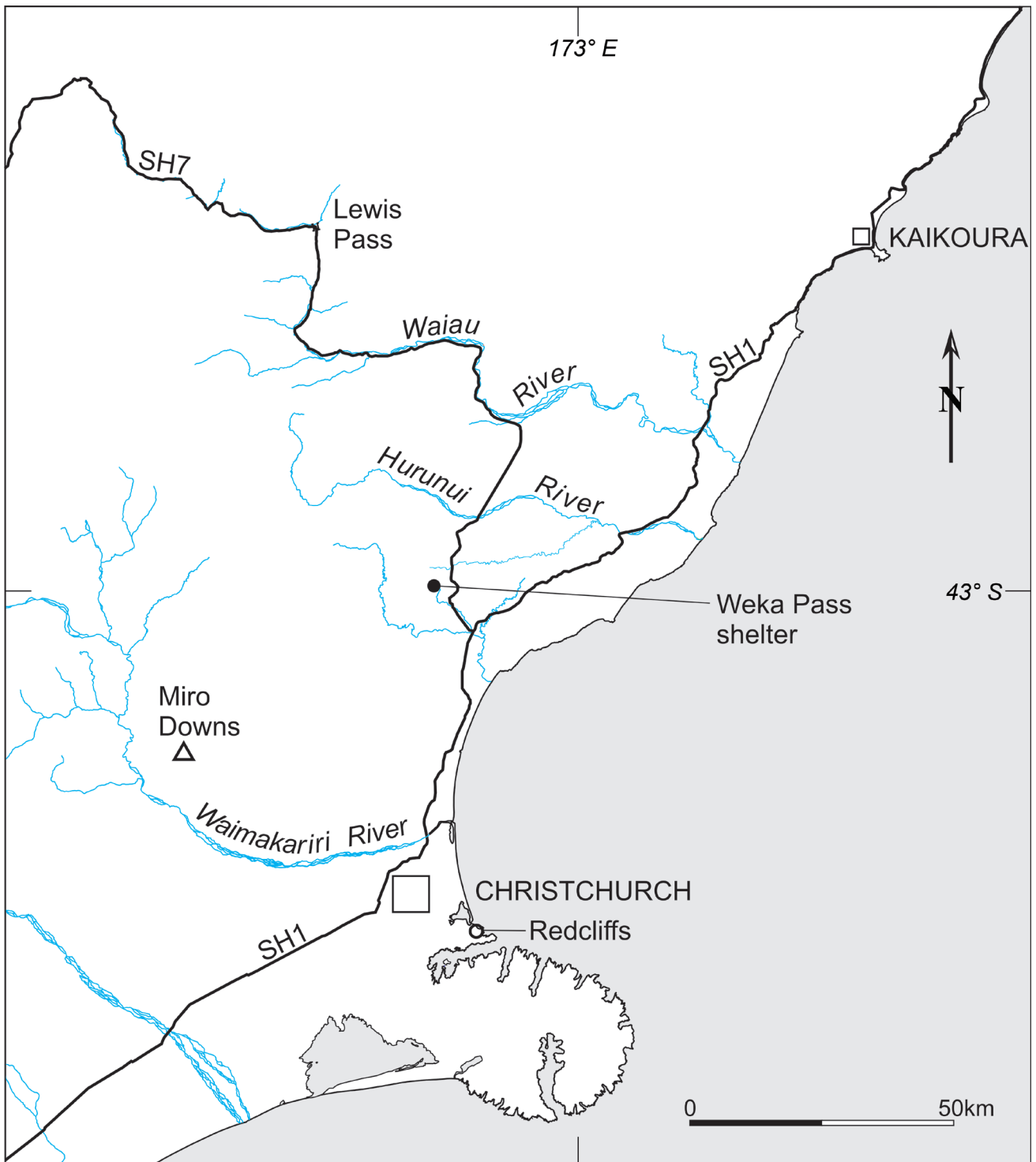


Figure 1. Location of the Weka Pass (Timpendean) rock shelter.

Chert

This is the most common stone material recovered from the site, and forms 69% of the assemblage (numerically). It includes five cores. Based on colour, quality and the presence of microfossils it is evident that the chert originated from at least three, and probably four, different sources, and an effort was made to establish the approximate quantity from each. The two main chert types are here referred to informally as Kaikōura and Torlesse (Fig. 3).

Kaikōura chert, considered to be derived from the Kaikōura coast (Moore 2021), forms at least 64% by

count (or 57% by weight) of the total chert. Most of this is of moderate to good flake quality, and predominantly grey, though some is greenish grey, brownish grey or pale brown. Some poorer quality white chert is also likely to have come from the Kaikōura Peninsula (pers. obs.). A few flakes contain radiolaria and/or foraminifera, indicative of a marine origin. Only one flake had a water-worn cortex, which suggests that the chert was brought onto the site mainly in the form of pre-prepared cores. Although most of the flakes show no obvious sign of use, one with use wear on two edges may have been a drillpoint (Fig. 3).



Figure 2. View to the southwest of the Timpendean rock shelter (at far end of the limestone bluff). Photo by Michael Trotter, 1967



Figure 3. Artefacts of chert from the Timpendean shelter. From left: small core of red-brown Torlesse chert; possible drillpoint of grey Kaikōura chert; flake of white chert. Canterbury Museum 2008.1150.30. Photo by author

Table 1. List of rock types identified from the Weka Pass shelter.

| Rock type | Number | Weight | Trotter (1972)† |
|----------------|--------|--------|------------------|
| Chert | 128 | 519 g | 13 (flint, 36 g) |
| Silcrete | 11 | 173 g | 5 (35 g) |
| Obsidian | 14 | 17 g | 11 (14 g) |
| Chalcedony | 3 | | not identified |
| Sandstone | 5 | | 5 |
| Meta-argillite | 4 | | 5 |
| Pounamu | 5 | | (7)* |
| Basalt | 1 | | not identified |
| Quartzite | 1 | | not identified |
| Kokowai | 1 | | 1 |
| Phyllite | 6 | | 5 |
| Schist | 2 | | 2 |
| Greywacke? | 1 | | not identified |
| Gizzard stones | 3 | | not identified |

†Differences in numbers between Trotter and this study can be largely attributed to differences in the identification of lithic materials

*All from the upper layer

Approximately 16% (42% by weight) of the chert was classified as Torlesse chert, and this is considered to originate from bands of volcanic rocks, red mudstone and chert within the Jurassic–Early Cretaceous greywacke sequence (Torlesse composite terrane) forming the main ranges (Rattenbury et al. 2006). In contrast to the Kaikōura chert, this material is predominantly red-brown, greyish red or chocolate brown in colour, and generally of poorer quality. One of the three cores recorded (Canterbury Museum 2008.1150.5) was formed from a water-worn cobble and it is likely that most of the Torlesse chert was procured from local rivers.

Chert that could not be confidently placed in the two main categories was classified as Other, and makes up about 20% of the total. It includes some material (at least 12 pieces), which is mostly red-brown or yellow-brown in colour, and appears to have a volcanic origin. This may be derived from the Mt Somers Volcanics in Mid Canterbury (Moore 2022).

There is also one small core (Canterbury Museum 2008.1150.5, weighing 10.7 g) which has a very different appearance. It is medium grey, has a distinctive speckled texture, and contains abundant sponge spicules. This chert is remarkably similar to the Pahautane chert found near Punakaiki on the West Coast (pers. obs.), although the same type of chert also occurs in South Canterbury (Moore 2019).

Sandstone

One of the more significant artefacts collected from the site, which was found in the paddock outside the shelter, is a cobble-sized hōanga (grinding stone) of quartzose, shelly, micaceous fine sandstone containing rare glauconite (Fig. 4). It weighs 365 g, and has a wedge-shaped cross-section. Both sides of the stone have been smoothed.

Four other pieces of sandstone were recovered from Trench 4. One is a large piece off a water-worn cobble, and another smaller piece may have been used as an abrader. It seems likely, considering the geology of the area (Rattenbury et al. 2006), that all of the sandstone, including the hōanga, was obtained locally, probably from a nearby river or stream.

Meta-argillite

Four items of metasomatised argillite were identified (one indefinite), three of which appear to have been derived from polished adzes. Two of these are dark grey, and conceivably might be from the same adze. Another is a portion of a polished adze (Canterbury Museum 2008.1150.30, consisting of two pieces glued back together) with a narrow sub-triangular cross-section, probably a Type 3 or Type 4 form (Duff 1956). It is composed of medium grey meta-argillite with black veins. All of this material probably originates from the Nelson-Marlborough region.

Silcrete

One core and 10 flakes of silcrete were identified. The core (Canterbury Museum 2008.1150.24), which consists of yellowish-grey silcrete, has a remnant of water-worn cortex and therefore was probably obtained from a river or stream. The nearest known silcrete source is at Miro Downs, near Oxford (Moore and Davis 2020, Fig. 1). Most of the flakes show no obvious sign of use.

Pounamu (nephrite)

There are five flakes and pieces of pounamu in the collection (cf. Trotter 1972), all from the upper layer. Notably, one of the flakes has a sawn edge, while another has a partly polished surface. Thus at least two of the flakes may have been derived from finished artefacts, possibly adzes.



Figure 4. Hōanga of sandstone. Canterbury Museum 2008.1150.7. Photo by author

Obsidian

The 13 flakes and one core of obsidian recovered from the site are all small (<30 mm). They are all olive green in transmitted light and on this basis are considered to originate from Mayor Island. The core (25.5 mm in length) and one of the flakes (27 mm length) were previously analysed by Seelenfreund and Bollong (1989) using non-destructive energy-dispersive XRF spectroscopy, and both were attributed to Mayor Island. No grey obsidian was identified (cf. Trotter 1972).

Other lithics

Several other rock types were identified, including quartzite, kokowai, basalt, phyllite and schist. The quartzite is red to yellowish-brown, and represents part of a water-worn cobble which may have been used as a hammerstone. The single piece of kokowai is composed of hematite-rich sandstone, and was presumably used for some of the rock drawings. The basalt is a flake off a polished adze. There is no indication of use of either the phyllite or schist, although the former was commonly used for slate knives (ulu), and schist as an abrasive material.

The presence of gizzard stones is not surprising, considering the occurrence of moa bone at the site. Whether these stones originated from the natural death of moa in the shelter, prior to human occupation, or later butchering of the birds by Māori, is unknown.

Age

Three radiocarbon dates were obtained from the 1968 investigation – one on moa bone (NZ 918, mentioned above), and another two on shell, both from the main occupation layer. One of the latter consisted of a mixture of pipi and *Mytilus* shell (NZ 892, NZ 3655) and yielded a conventional age of 436 ± 53 years BP (recalculated to 744 ± 58 BP, Challis 1995). This was recalibrated using Calib version 8.2 (Stuiver and Reimer 1993) and the most recent calibration curve Marine20, with a regional Delta R offset of -154 ± 38 14C years (Anderson and Petchey 2020; Heaton et al. 2020), giving an age of AD 1438–1792 at 95% confidence, and AD 1500–1670 at 68% confidence. This indicates the shelter was occupied on at least one occasion, in the sixteenth or seventeenth century.

The other dated sample (NZ 893) consisted of freshwater mussel shell (*Echyridella menziesii*), and had a conventional age of 704 ± 41 years BP (later recalculated to 811 ± 61 BP, Challis 1995). Although this species is regarded as being unreliable for dating because of its propensity to absorb old carbon into the shell (particularly in limestone country), it should nevertheless be considered. This provided a re-calibrated age (using Calib v.8.2 and Marine20) of AD 1280–1394 (median AD 1340) at 95% confidence, which may be too old.

These dates do not provide a clear indication of when the shelter was first used, or for how long, though we can reasonably assume from the overlap of some rock drawings and the use of different drawing materials (Haast 1877) that it was occupied on multiple occasions. The stone artefacts were therefore probably deposited over a period of time, and the presence of part of a Duff Type 3 or 4 adze would tend to suggest the shelter was initially used during the Early period, prior to about AD 1500. While silcrete was also used at Late period sites in Canterbury (e.g. Houhoupounamu, Challis 1995), it is much less common than in the Early period (Moore 2022).

Discussion

The range of lithic materials recovered from the Weka Pass shelter tells us that those who used it, in pre-European times, had either a direct or indirect connection with areas to the north (Nelson-Marlborough meta-argillite, Kaikōura chert, and Mayor Island obsidian) and south (silcrete and volcanic chert?). A probable link with the West Coast of the South Island can also be established from the small core of Pahautane-type chert. While this is also indicated from the pounamu, Trotter (1972: 45) noted that the small pieces of nephrite were found in the upper layer, overlying the main occupational deposit and associated with European items (e.g. pieces of clay pipe, glass), and thus apparently deposited much later.

It is clear that a significant proportion of the stone material was brought to the site from beyond the Weka Pass area in the form of finished tools (adzes) and pre-prepared cores (chert, silcrete, obsidian), presumably from one or more semi-permanent settlements somewhere along the Canterbury coast. Although this material does not provide any obvious indication of where such settlements might have been, the presence of pipi shell (*Paphies australis*), which could only be from an estuarine environment, suggests that some visitors to the shelter likely travelled from near present-day Christchurch, possibly Banks Peninsula. Interestingly, the only other place that Pahautane-type chert has so far been identified in Canterbury is at Redcliffs, a site which was occupied in the fourteenth century (Moore 2022).

The types of stone artefacts and range of bird bone found at the shelter suggest that while it was almost certainly used for hunting purposes, other activities were also undertaken. For example, adzes of at least two different materials were used on site (two of meta-argillite, one of basalt), and the hōanga and other pieces of sandstone would indicate that they were either being re-sharpened or re-fashioned at the shelter. These adzes may have been employed in cutting down trees and/or splitting logs and thus the shelter was perhaps occupied, at times, for longer periods (weeks?) than has been suggested previously.

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A Living Panorama: Parasols at Canterbury Museum

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Canterbury Museum cares for a collection of 76 parasols largely acquired by Honorary Curator of Colonial Exhibits at the Museum, Rose Reynolds, during the second half of the twentieth century. Despite their significance as personal objects, parasols remain a mostly unexamined aspect of textile and fashion history. This paper addresses this gap by explaining the characteristics of the parasols in Canterbury Museum's collection and situating parasol use in the context of nineteenth and early twentieth century Canterbury and New Zealand. Throughout the paper, parasols are highlighted as objects passed down matrilineal lines and intimately connected with women's stories in the Museum.

Keywords: fashion history, gender, parasols, Rose Reynolds, textiles

Introduction

Widower Smith Howard (1808–1893) and his three daughters made their way from Gravesend, England, to Lyttelton aboard the *Charlotte Jane* in 1850. They took with them a number of items to help them begin their new life in Canterbury, as well as precious personal objects. Among these items was a brown silk carriage parasol, shown in Figure 1, which was likely brought out by one of the daughters in memory of their mother.¹ The parasol was kept by the youngest daughter Mary Elizabeth Howard (1844–1917) and was donated to Canterbury Museum by her granddaughter Miss Harriet Buss in 1958.

The act of taking the parasol on such a long journey and passing it down the maternal family line highlights its significance as a family object and as a memento to remember the dead. Women, especially, appear to have valued parasols not only as personal items that were aesthetically pleasing, but also as important

connections to significant individuals. This reflects Tanya Evans' (2012) findings about family, memory and material culture in colonial Australia. Evans argues that women were instrumental in passing clothing and other handmade items, as well as the associated skills and knowledge, down the maternal family line. As families migrated to and settled in a new place, Evans argues that these practices became a crucial aspect of family history construction. It also meant that clothing and material were highly valued on the journey to Australia (Evans 2012: 208, 217, 222). Parasols were likely to be valued as objects that could not be easily obtained or made by settlers in the nascent years of colonisation in New Zealand. According to Maria Vazquez, who analysed and described the parasols in the University of Rhode Island's historic textile and costume collection, despite their significance, "parasols are a largely undocumented genre of fashion history" (Vazquez 2018: 90). This paper will use Canterbury Museum's collection of 76 parasols



Figure 1. An early Victorian carriage parasol with a timber shaft and a cover of light brown shot silk brocade with a black silk fringe. The ferrule appears to be made from ivory and has two tassels. One image showing the parasol closed and folded, the other showing it open and extended. Overall length 740 mm, diameter 560 mm plus 90 mm fringe. Canterbury Museum, EC158.107



Figure 2. Cream Edwardian parasol with net cover and turned wood handle. One image showing the top of the open parasol, the other showing the interior of the open parasol. Overall length 1000 mm, diameter 920 mm. Canterbury Museum EC162.178

to explain some of the parasols' key features and attributes, to reference their social use in a Canterbury and wider New Zealand context, and to highlight the connections that women had to these objects.

The Gendered Nature of Parasol Donations and Collections

The parasols in the Museum's collection whose dates of manufacture span nearly 100 years (from the late 1830s to 1930s) were overwhelmingly donated by women (88%), generally by daughters or granddaughters of the original owner. Where men did donate them, this may have reflected the conundrum faced by the inheritors of a mother's personal effects. A likely example of this



Figure 3. Sarah Phoebe Walker (1875–1962). Sourced from www.ancestry.com.au

in Canterbury Museum's collection is an Edwardian parasol (Fig. 2) with no real connection to New Zealand, which was donated to the Museum by Dr Donald Walker in 1962. His mother, Sarah Phoebe Walker (1875–1962) (Fig. 3), was born in San Francisco, California and only arrived in New Zealand in 1950. After Sarah's death in 1962 her son donated the parasol and 30 other items of women's and children's clothing.

Parasols were not only linked to family members, but also to other significant figures. Another parasol (Fig. 4) was donated because of its supposed connection to Queen Victoria. According to the donor, Queen Victoria had given it to one of her ladies in waiting, who in turn gave it to the donor's father Percy Rosetti Peters (1889–1963), a medical masseur in London, in lieu of payment for treatment in about 1923.

Parasols were overwhelmingly donated by women and at Canterbury Museum they were also largely collected by a woman, Rose Reynolds MBE (1907–1994), Honorary Curator of Colonial Exhibits from 1948 until her retirement in 1980, which further confirms their status as a gendered objects in the Museum. The first parasol in the collection, an 1870s sunshade, was donated by a Miss Gerard in 1948. This parasol was soon joined by parasols from the Canterbury Pilgrims and Early Settlers Association's collection which was transferred to Canterbury Museum in 1949. Rose Reynolds acquired more parasols (Fig. 5). She systematically collected domestic furnishings and costume, developing one of the best collections in New Zealand. Her collecting was partly a reflection of a wider trend around New Zealand, as Pākehā New Zealanders held fashion parades and pageants during settler centennial celebrations. Many of these items, often related to women, were later donated to museums. The Cavalcade of Fashion parade, partly organised by Canterbury Museum in 1950, included a public appeal for clothing dating from the first 100 years of the Canterbury settlement. Many of these items became a part of Canterbury Museum's permanent collection (Regnault 2021: 10). During her time at the Museum, Rose oversaw the acquisition and care of 60



Figure 4. Cream Edwardian parasol with net cover and turned wood handle. One image showing the top of the open parasol, the other showing the interior of the open parasol. Overall length 1000 mm, diameter 920 mm. Canterbury Museum EC162.178

of the 76 parasols in the Museum collection. There have been no donations of parasols at Canterbury Museum since 2009.

Overall, objects connected to women are under-represented within the Museum's collection, and those that do exist fit firmly within the realms of domestic life. By telling the story of personal items in Canterbury Museum's collection that were owned by women we can extend the presence of women in the Museum's collection and in Aotearoa New Zealand's history. This paper will begin by outlining three types of parasols. The characteristics of each type will be explained, followed by a discussion on the use of parasols in Canterbury and New Zealand. The next section will highlight parasol features such as handles and linings and the paper will conclude with biographies of some of the owners of the parasols featured in this article.

Types of Parasols

As outlined by Vazquez, there are three main types of parasols; carriage parasols, walking parasols and sunshades (Vazquez 2018: 172). Canterbury Museum has examples of all three and these are described in more detail in the following sections.

Carriage Parasols

Carriage parasols, which have a hinge in the middle to allow them to be folded in half when not in use, were developed in the 1840s. They were designed in response to the popularity of travelling in an open carriage due to Queen Victoria's preference for travelling in this way (Vazquez 2018: 18). The idea was to see and be seen and while a parasol might provide shade it was also an important fashion statement. Parasols needed to be compact so that they did not get in the way when they were not in use, hence the hinge in the middle. Carriage parasols remained popular until the 1880s (Vazquez 2018: 19). Canterbury Museum has 17 carriage parasols with those that could be photographed open shown in Figure 6.

Colours and trimming varied greatly but most carriage parasols had eight ribs. In 1869 a four rib parasol appeared but these were made only briefly due to their flimsiness (Vazquez 2018: 2) and are now relatively rare. Amazingly, Canterbury Museum has a four rib parasol, shown in Figure 7. Another unusual parasol is one in the shape of a four leaf clover (Fig. 8) which belonged to Scottish woman Jean Alice Stevenson née Boyd (1836–



Figure 5. Rose Reynolds MBE (1907–1994) Honorary Curator of Colonial Exhibits 1948–1980. Canterbury Museum 1980.175.71172



Figure 6. Twelve of the carriage parasols in the Canterbury Museum collection in approximate order of manufacture (left to right, top to bottom) from the 1840s to 1880s. The remaining five are too fragile to be opened.



Figure 7. An unusual square carriage parasol with only four ribs, made in 1869. The cover is black and white striped satin with a silk fringe. This parasol is doubly unusual in that the ivory ring for hanging the parasol is still at the top of the shaft – many have not survived. One image shows the top of the open parasol, the other shows the closed parasol with its handle folded. Overall length 640 mm, width 610 plus 60 mm fringe. Canterbury Museum EC174.112



Figure 8. A carriage parasol in the shape of a four-leaved clover which dates from the 1850s or 1860s. It has a folding timber shaft with an ivory ferrule and ring. The fabric is silk edged with braid and the parasol has long cream silk tassels. One image shows the top of the open parasol, the other shows the closed parasol with its handle folded. Overall length 640mm, diameter 540 mm plus 90 mm fringe. Canterbury Museum EC160.10



Figure 9. An early Victorian carriage parasol with silk cover, tassels and an ivory shaft and ferrule. One image shows the open parasol from the side, the other shows the closed parasol with its handle folded. Overall length 620 mm, diameter 600 mm plus 90 mm fringe, Canterbury Museum 2008.133.1

1910), who arrived in Canterbury with her husband John in 1862.²

Carriage parasols were the most expensive of the three types of parasols and being able to afford one implied status (Vazquez 2018: 42). Their shafts were usually timber, but ivory was a popular, though even more expensive, option when buying a parasol. A typical example of an ivory shaft with a metal hinge is shown in Figure 9 while Figure 10 shows an unusual screw threaded ivory handle.

Walking and En-tout-cas Parasols

Walking parasols have a spike or a sturdy ferrule (tip) for contact with the ground and a greater overall length than carriage parasols and sunshades. En-tout-cas (in any case) are very similar but have waterproofing on the fabric to protect the user from unexpected rain (Vazquez 2018: 21). The latter have not been included in this article as they are essentially umbrellas. Walking parasols (Fig. 11) are the most numerous in the Museum's collection, reflecting both their practicality and women's active lifestyles. They remained fashionable until the 1920s (Vazquez 2018: 85).

Twelve of the 16 walking parasols in Canterbury Museum's collection date from the late Victorian period and onwards with later examples becoming increasingly similar in style to umbrellas.

Sunshades

Sunshades (Fig. 12) differed from carriage and walking parasols in that they did not fold in half with a hinge and were not long enough or robust enough to be used as a walking parasol. Some sunshades, such as that in Figure 13, had long lace trims or tassels but others more closely resembled modern umbrellas (Fig. 14).



Figure 10. An unusual carriage parasol shaft which has a screw thread to connect the two ivory shaft pieces rather than the usual shaft. Made by Sangster's of London, "Umbrella and Parasol Makers to the Queen & Royal Family", early Victorian. Overall length 605mm, diameter 500mm plus 130mm fringe, Canterbury Museum EC161.122



Figure 11. Eighteen walking parasols from Canterbury Museum in order of their approximate date of manufacture (left to right, top to bottom), from the 1840s to 1930s



Figure 12. Sunshades in the Canterbury Museum collection in order of their approximate date of manufacture (left to right, top to bottom), from the 1840s to 1930s

As they were much simpler to make than carriage parasols they could be afforded by middle class women. The cost of the materials used indicated the status of the owner (Vazquez 2018: 44). More recent sunshades were made from cotton and linen and were often printed (Fig. 15) and handles tended to be heavier and curved, making them easier to hold onto. By the 1930s frills and flounces had disappeared.

Context

Parasols have a long global history, with parasols and umbrellas becoming distinguished from each other in the eighteenth century as the former became known for its use as a sunshade (Vazquez 2018: 2–3) and the latter for protecting the user from rain. The type of materials used, as well as the style of the parasol, were important

indicators of the wealth of the owner. Even though the manufacturing of parasols became cheaper over time, they still retained their quality as a status symbol. They signalled not only that the owner was able to afford such an item, but also that they had the leisure time available to use it and were attending the associated events – such as picnics and balls – where a parasol would be appropriate attire (Vazquez 2018: 45). Parasols were also associated with pale skin, something that carried additional implications in a settler colony such as New Zealand, where European-style clothes were used as tools by missionaries to ‘civilise’ Māori. However, as Claire Regnault notes, Māori often interpreted European dress in their own way and wore it to their own advantage (Regnault 2021: 22–26, 29).

There is very limited existing literature about the

use and manufacturing of parasols in New Zealand. Vazquez proposes that parasols waned in popularity in America during the 1920s and 1930s (Vazquez 2018: 86, 90). Online database searches of local Canterbury newspapers suggest that this is also accurate for our case study, with the most significant shift occurring after 1910, when the incidence of articles featuring the words parasol and sunshade decreased substantially. In 1941, local Christchurch department store Ballantynes had a window display on Fashion of the Past, which included parasols and crinoline, firmly relegating parasols to the realm of history (*Press*, 28 August 1941: 3). Vazquez suggests that a decline in the use of parasols partly reflected “the desire to move away from the upper class appreciation for the matronly appearance” (Vazquez 2018: 86). This “appearance” likely included features of the parasols such as lace, fringes and embellishments on the fabric. Later examples of Japanese-inspired sunshades in the Museum’s collection (Fig.12) appear to demonstrate this change since they tend to solely feature patterned fabrics.

Another factor that affected parasol use during this time was that tanned skin became more fashionable (Vazquez 2018: 86), especially for middle class Pākehā women. Sunbathing also became part of health advice for families, although precautions were still given about prolonged exposure. In a reprinted article in the *Star* in 1930, the author Phyllis Wray cautioned against sunburn: “Begin with short ‘doses’ of exposure, though, for you must tan and not burn. Burning, redness, fever and blisters destroy cells.” (*Star*, 17 January 1930: 13). Methods for preventing sunburn other than parasols, like creams and hats, were increasingly advertised. One article in the *Temuka Leader* advised the following method for warding off freckles: “Broad-brimmed hats, especially in red yellow, [sic] and brown shades, protect the skin. Or, if you must go hatless in garden or country, use a gay Japanese parasol, which is cheap and light.” On very sunny days, the article states, “a special anti-freckle make-up is invaluable” (*Temuka Leader*, 22 November 1932: 8). This evidence suggests that the parasol increasingly became less practical for women to use and highlights the shift to using lighter fabrics on parasols. As the *Waikato Times* commented in 1930:



Figure 13. A brown satin sunshade with floppy lace trim. It has a cream satin lining and a matching etched and painted timber handle and ferrule. The parasol is thought to date from the 1870s. Overall length 840mm, diameter 780mm (including trim), Canterbury Museum EC164.31

“No more the tiresome habit of holding up the sunshade and clutching it every few moments when the least wind blows. On goes the beach hat and there is [sic] stays.” (*Waikato Times*, 1 December 1930: 13).

Prior to this shift, newspapers provide evidence that parasols were valued items, with consistent reporting of lost parasols, as well as some larceny cases about stolen parasols. This could reveal likely class differences, such as when a woman named Bella McDonald was visiting William McClay’s servant in Sumner and allegedly stole a silk handkerchief and a parasol, although she was not convicted (*Star*, 17 February 1887: 3).³ Their cost was highlighted by advertisements from local business Lethaby’s that began in the late nineteenth century, stating that a new “black and white parasol” cost 25 shillings, whereas “your old one can be Covered [sic] and made equal to new for 5s 6d” (*Lyttelton Times*, 8 December 1899: 1). Sarah Amelia Courage wrote



Figure 14. A British-made sunshade from the 1920s or 1930s with a floral cotton cover with a detail of the carved and painted curved wooden handle. One image shows the interior of the open parasol, the other shows the detail on the handle. Overall length 570mm, diameter 820mm Canterbury Museum EC176.501



Figure 15. This parasol is part of the Mollie Rodie Mackenzie (1919–2020) collection, a comprehensive assemblage of twentieth century New Zealand fashion purchased by Canterbury Museum in 1984. It is modern in style and is very similar to an umbrella except that the linen cover is not waterproof. The shaft is painted timber but the handle itself is blue plastic. It is labelled “British make” and dates from the 1930s. Overall length 520 mm, diameter 750 mm, Canterbury Museum 1984.70.4253

about a charity fair for Christchurch Hospital in 1865, commenting that “Gay parasols made bright patches of colour – a living panorama.” (Courage 1976: 227). An example of prevalence of parasols can be seen in Figure 16. References like this can give us some insight into how parasols brought colour into the cultural life of Christchurch.

In terms of fashion, nineteenth century Canterbury newspapers, like newspapers around New Zealand, frequently reported on what the latest Parisian and other international fashion trends were (Regnault 2021: 14). This did not mean that New Zealand developed its trends concurrently. The *Star* contained a description of the dresses worn by the actress Genevieve Ward in the play *Forget-Me-Not* in 1884, including a description of a parasol: “The parasol with its long stick is a novelty to

Christchurch eyes, and is of moss-green and pale blue to match the dress.” (*Star*, 6 December 1884: 3).

Parasols were not only a valued fashion item that served to protect the owner from the sun, but they were also associated with social norms about flirting and socialising. It is unclear how widely such norms, like holding the parasol in a certain way to signal one’s affection, or staring coquettishly from underneath a fringed parasol, were used by women. These ideas and others do appear in literature quoted in the newspapers, which is not unusual considering parasols were a popular accessory for women. Their use as tools for flirtation was certainly heightened in the literary genre for dramatic effect. For instance, one story reprinted in several instalments in the *Star* contains the following line: “‘Won’t you explore?’ asks Isobel, glancing up at him seductively from beneath her heavily-fringed parasol” (*Star*, 6 January 1874: 3). Flirting through the use of parasols was known about enough for jesting articles to be written about the dangers such flirtation posed. The *Lyttelton Times* published such an article in 1884, containing a guide about parasol flirting with comments such as: “Halting suddenly while holding it closed over the shoulder – I have your eye”, and “Closed and pounded rapidly and with great violence over your head and ears – I do not love you any more [sic].” (*Lyttelton Times*, 18 October 1884: 4).

A reprinted article in the *Ashburton Guardian* from the *Boston Courier* took this further by arguing that women “meddling with political questions of which they do not comprehend the simplest rudiments” should devote time “to advocate a reform and a decency in the use of the sunshade.” (*Ashburton Guardian*, 20 October 1886: 2). Parasols, associated with fashion and frivolity, could be used to denigrate women. However, women also used this social commentary to their own advantage. In 1894, the *Press* published an article entitled “New use for the parasol: advice to prohibitionist ladies”. This was a report of an article run by the *Australasian*, which described how women interrupted a meeting held in Christchurch by “Moderates” on the liquor question. The women, who were in favour of prohibition, were “beating their parasols on the floor, and stamping with their feet” to create upheaval at the meeting, yet according to the *Australasian* this was ultimately a



Figure 16. A sea of gay parasols at Joseph and Sarah Kinsey’s residence at Clifton, Christchurch, in 1908. Canterbury Museum 1940.193.75

fruitless endeavour. The *Press* article concluded thus: “Even if the ladies broke their parasols over the heads of members of Parliament the [liquor] traffic would continue.” (*Press*, 10 April 1894: 5).

To place parasols further in a local context, Canterbury Museum has eight images of women who chose to be photographed with their parasols. In most cases this meant taking their parasols with them to the photography studio, indicating the importance of this fashion accessory. Emma Parkerson was photographed in her Christchurch garden with her closed parasol on her lap (Fig. 17) but all of the other images (Figs. 18 to 23) are studio portraits with the possible exception of the most recent one (Fig. 24).

Parasol Features

Handles were an important consideration when buying a parasol as they would last much longer than the fabric cover which could be replaced. In 1902, Mrs Eric Pritchard of London, recommended buying a beautiful handle “which will do duty again and again. Naturally silk wears out, but a beautiful handle does not...” (Pritchard 2017: 195). In 1912, reports from a London correspondent published in the *Timaru Herald* signalled that “once again the craze for the bizarre is shown in the parasol handle” (*Timaru Herald*, 27 July 1912: 1 supplement). The correspondent used examples such as carved parrots’ heads, the automated handle and the use of crystal. Canterbury Museum’s collection has some interesting examples, including an 1880s sunshade with a carved griffin head (Fig. 25) and a handle that may or may not have been made to represent an example of New Zealand’s native flora (Fig. 26).

Handles in the shapes of twigs and branches were a popular and cheaper option for an individual look. Examples can be seen in Figures 27 and 28. From the 1890s, when parasols became more utilitarian, handles tended to be smaller but were still decorative as can be seen in the examples in Figures 29 to 31.

Parasols were made in a variety of shapes, in fact in such variety that it makes them difficult to categorise. Most parasols were dome shaped, but some other shapes were notable, such as the pagoda shape shown in Figures 32 and 33. Some parasols were flat (Fig. 34), others were a flat conical shape with lace fringes (Fig. 35). Figure 36 shows additional shapes that we could not find names for (see Vazquez 2018: 26).

The Inside View

Some of the parasols have surprising linings. The first parasol to be added to Canterbury Museum’s collection was a sunshade which features a wonderful bright blue lining designed to complement the blue trim on the exterior (Fig. 37). Figure 38 shows an eye-catching combination of gold and black. Another study in contrast is found in a walking parasol with a purple outer and a yellow interior (Fig. 39). Another rather plain black walking parasol belonging to Sarah Courage has a mass of ruffles and lace on the inside (Fig. 40).



Figure 17. Emma Parkerson née Mount (1810–1894) of Christchurch holds a carriage parasol on her lap in this photograph taken by Alfred Barker on 21 June 1870. Canterbury Museum 1944.78.222



Figure 18. A studio portrait of an unnamed Christchurch woman who chose to be photographed on her one person horse-drawn gig c.1885. She is holding what appears to be a carriage parasol. Standish & Preece Photographers, Canterbury Museum 2021.18.70

This style must have been popular with Sarah Courage as another of her walking parasols has a lining of pink ruffles (Fig. 41).

Parasols such as Sarah Courage’s in Figure 40 and the lavender lined parasol in Figure 34 played a role in making their holder look more becoming. Marion Rankine (2017), quoting Charles Blanc in *Art in Ornament and Dress* (1877), states that there was considerable pressure for a woman to look marriageable,



Figure 19. A studio portrait of an unnamed woman who is holding her satin and lace walking parasol, c.1880s. Standish & Preece Photographers, Canterbury Museum 2021.18.95



Figure 21. A studio portrait of two unnamed women. The married woman on the right has a pen and journal while her daughter or friend holds an Asian style sunshade. Canterbury Museum 1980.175.93220



Figure 20. Christchurch resident Mary Jane Margaret Gibbs (formerly Tussell, née Preece, 1849–1898) with her lace fringed sunshade, c.1885. Standish & Preece Photographers, Canterbury Museum 2021.18.107



Figure 22. A “Mrs Rainton” with her walking parasol. “Mrs Rainton” is thought to be Annie Eliza Rainton, née Cuthbertson (1873–1954). Canterbury Museum 1980.175.67997



Figure 23. A Mrs Frederick Warren of Christchurch with her walking parasol. HH Clifford Photographer, Canterbury Museum 1980.175.87415

i.e., youthful, for as long as possible. The use of parasols helped maintain a pale and unweathered complexion and “a carefully chosen parasol could go even further and by casting a bloom of youth across a woman’s features” (Rankine 2017: 83). A quip published in the *South Canterbury Times* highlights this further: “When a young lady asked to look at a parasol, the clerk said, ‘Will you please give the shade you want?’ ‘I expect the parasol to give the shade I want,’ said the young lady.” (*South Canterbury Times*, 16 May 1885: 3). By choosing a flattering colour for the interior of the parasol, wearers could enhance their complexion.



Figure 24. Miss E Smith and sunshade, c.1930s. It is difficult to determine whether this parasol is made of paper or fabric, but this photograph nevertheless demonstrates the change in wider fashion trends in the 1930s, especially when compared with the frills and lace in photographs such as Figure 13. HH Clifford Photographer, Canterbury Museum 1980.175.75902

Parasol Owners

While some of the parasols at Canterbury Museum have little or no provenance details others do have the name of the original owner. To expand information about the women connected to objects cared for by the Museum, brief biographies of some of the owners of the parasols



Figure 25. An 1880s or 1890s sunshade with a satin cover, trimmed with lace, a metal shaft and a carved timber griffin’s head as the handle. One image shows the open parasol, the other shows the detail on the handle. Overall length 870 mm, diameter 810 mm plus 50 mm fringe. Length of handle 175mm, Canterbury Museum EC181.59,



Figure 26. This sunshade has a knob in the shape of a fungus native to Australia and New Zealand, *Cyttaria gunnii*. Whether this is coincidental or deliberate is not known. The original owner was Emma Charlotte Lena Hardy-Johnson (1867–1929) who was born in India and arrived in New Zealand with her parents in the mid-1870s. In 1887 she advertised dancing and deportment classes in Christchurch and continued teaching after her marriage to Edward Thomas in 1891. The classes were taken over by her daughter Evelyn Comyns Thomas (1892–1974) in 1922 and it was Evelyn who donated the parasol. Overall length 910 mm, diameter 1020 mm, Canterbury Museum EC150.273

studied for this article have been compiled. These have been organised chronologically from the approximate date of manufacture of the parasol. The fact that the biographies are brief reflects the paucity of information on individual women during the Victorian era. The authors wanted to have a photograph of each parasol owner in this section, but in some cases no photograph of the woman could be located.

Harriot Riddiford (née Stone)

Harriot Riddiford (1816–1891) (Fig. 42) probably brought her black silk parasol (Fig. 43) with her when she came to Wellington with her husband Daniel on the *Adelaide* which arrived in March 1840.⁴ Daniel worked as an immigration agent for the New Zealand Company (*Evening Post*, 7 September 1891: 2) and Harriot's obituary recorded that she "cheerfully undertook her



Figure 27. An 1870s black silk walking parasol with a machine lace trim, brass fittings and tree branch style handle (inset). This parasol was donated by the daughters of Lucy Jane Matthews, née Peache (c.1853–1927) to the Canterbury Pilgrims and Early Settlers Association. Lucy and her husband William came to Otago in 1878 and as the parasol dates from about this time it is possible that Lucy brought it with her from England. One image shows the open parasol, the other shows the detail of the handle. Overall length 835 mm, diameter 930 mm plus 100 mm trim, Canterbury Museum, PA.1291



Figure 28. This 1880s walking parasol has a cane shaft and a root, or root imitation, has been used for the handle and the ferrule. This cheerful brocaded satin parasol was brought to New Zealand by Florence Emily Maud Bassil (1902–1980) during the 1960s. The parasol had belonged to her mother Martha Tilley of Sussex, England. Canterbury Museum EC179.243



Figure 29. Detail of handle and knob on an Edwardian walking parasol in the style of French painter Jean-Antoine Watteau (1684–1721) who revitalised baroque style and idyllic rural scenes. Canterbury Museum EC67.56



Figure 30. Hand painted ceramic knob on late Victorian silk parasol which was too degraded to be opened. Canterbury Museum PA.1299



Figure 31. An Art Nouveau style enamelled ceramic knob on a walking parasol originally used by Emily Clara Burrowes, née Strange (1867–1936). Canterbury Museum EC178.943



Figure 32. A pagoda style late Victorian walking parasol made of chiffon with frills, net fringe, ribbons on the shaft and ferrule and bunches of flowers painted onto the cover. Provenance unknown. Overall length 930 mm, diameter 1060 mm, Canterbury Museum EC67.60



Figure 33. This late Victorian walking parasol of black net and chiffon with beige applique was used by Agnes Macfarlane (1854–1924) who was born at Lowburn Station in Canterbury. Agnes married George Jameson in 1874 and the couple had 10 children. Agnes's daughter Mary, who donated the parasol in 1970, remembered that her mother used it when she attended garden parties and weddings. Overall length 930 mm, diameter 1030 mm, Canterbury Museum EC170.34



Figure 34. A small early Victorian carriage parasol with white painted wooden handle and shaft lined with lavender silk and topped with cream lace. Overall length 585 mm, diameter 620 mm, Canterbury Museum PA.1306



Figure 35. Flat conical shaped parasols with lace fringes. Canterbury Museum, left to right PA.1291, EC164.31, EC167.67



Figure 36. A selection of parasol shapes. A, Cotton cover with black lace around ferrule, overall length 810 mm, EC172.89. B, Cotton cover with timber dowel shaped shaft, overall length 660 mm, EC178.395. C, Silk cover with wooden shaft and handle and ivory tip, overall length 715 mm, EC168.43.

share of the hard work and privations incidental to all new settlements, and by her decision of character and her amiable disposition was enabled to lighten the labours of her husband..." (*Evening Post*, 7 September 1891: 2). Harriot was survived by nine children. The connection between the donor, Miss P Griffiths of Marton, and Harriet Riddiford has not yet been established.

Georgina Bowen (née Markham)

Another parasol (Fig. 44) that may have been brought to New Zealand by its owner is one owned by Georgina Elizabeth Markham (1838–1921) who married Charles Christopher Bowen (later Sir Charles Bowen) in London in 1861 (Fig. 45). Charles (1830–1917) had been living in Canterbury since 1850 and after their marriage the pair lived at Middleton in Christchurch (Fig. 46) "where their

home became a well-recognised centre of hospitality" (*Press*, 7 June 1921: 2). Here Charles continued his political career, and it is likely that Georgina attended many social engagements. Georgina was very involved with the local church (her father was a rector) and after her death she was described as a "gentlewoman" who had "exercised great influence in the moulding of the early standards of Canterbury" (*Press*, 7 June 1921: 2). The parasol was donated to the Museum by one of Georgina's daughters.

Ellen Reeves (née Pember)

The parasol in Figure 47 was donated to the Museum in 1951 by Elizabeth Hope O'Rorke from the estate of her aunt Ellen (Nellie) Mary Reeves (1866–1951). It was originally owned by Ellen Pember (1833–1919), the wife



Figure 37. This silk sunshade, which dates from the 1870s, opens to reveal a lining of bright blue (inset), which beautifully complements the (now rather faded) blue on the outside. Donated by Miss Gerard in 1948, this was the first parasol to be added to the collection. Overall length 700 mm, diameter 580 mm, Canterbury Museum EC148.56



Figure 38. This chiffon parasol, from around the turn of the century, has gathered frills and is trimmed with small gold, blue and pink flowers. The ribs and stretchers are made from gold coloured metal, creating an eye-catching and complementary interior view. One image shows the open parasol from the side, the other shows the interior of the open parasol. Overall length 960 mm, diameter 900 mm with 100 mm trim, Canterbury Museum EC183.111



Figure 39. A delightful contrast is provided by the lining of bright yellow silk (detail) in this late Victorian brocade walking parasol. One image shows the top of the open parasol, the other shows the interior lining detail. Overall length 750 mm, diameter 1070 mm, Canterbury Museum PA.1296



Figure 40. Sarah Courage's late Victorian black silk walking parasol has a plain exterior but a mass of ruffles inside. One image shows the top of the open parasol, the other shows the interior lining detail. Overall length 915 mm, diameter 1000 mm, Canterbury Museum EC150.202



Figure 41. On this late Victorian black silk walking parasol, also owned by Sarah Courage, the trim gives a hint of the mass of pink ruffles inside. One image shows the top of the open parasol, the other shows the interior lining detail. Overall length 920 mm, diameter 1030 mm, Canterbury Museum EC150.203

of William Reeves, journalist and politician, and the mother of politician and poet William Pember Reeves. William and Ellen married in England in 1853 and came to Canterbury in 1857 on the *Rose of Sharon* and Ellen brought the parasol with her. In 1864 the couple built a grand house which they named Risingholme on

11 acres of land at Opawa (Fig. 48). Ellen's parasol was first displayed at the Museum in 1951 when the Early Colonists' exhibition at the Museum was updated by Rose Reynolds (*Press*, 14 April 1951: 2).⁵

Jessie Irving (née Greenham)

Canterbury Museum has a walking parasol (Fig. 49) which was part of the wedding ensemble of Jessie Mary Greenham (1844–1908) who married James Irving in England in 1870. Jessie brought the parasol with her when she came to New Zealand on the *Crusader* in 1879 with her husband (who was the ship's doctor), eight children and a nanny. The family was subsequently expanded to 11. Dr Irving had his own private hospital in Christchurch (The Limes) where the Town Hall now stands. The parasol was donated to the Museum by Jessie's granddaughter in 1957.

Sarah Courage (née Hopwood)

Two parasols (Fig. 50 and 51) were donated by the daughter and granddaughter of the writer Sarah Amelia Hopwood (1845–1901). Sarah (Fig. 52) married Frank Courage in England in 1863 when she was 18 years of age and soon afterwards the couple emigrated to Canterbury. Sarah then lived with her husband on a remote farm in North Canterbury. She kept a journal (which has not survived) and in 1896 published an account of her first years in Canterbury describing her life as a young wife in the country. Despite the fact that she used *nom de plumes*, Sarah's pithy descriptions of her neighbours saw most of the small number of books she published burned, but the book was republished in 1976. Sarah had a great sense of humour but was something of a snob and critical of the dress of others if it didn't come up to her high standards.

Janet Helmore (née Gray)

Janet Maud Helmore née Gray (c.1865–1947) owned an Edwardian cream lace parasol (Fig. 53) which was donated to the Museum by her son Heathcote Helmore. Janet was the daughter of Hon. Ernest Gray who arrived



Figure 42. Mrs Harriot Riddiford (1816–1891). Masterton Archive 16-155/99



Figure 43. This black lace and elaborate early Victorian silk parasol has a carved ebony twig style handle with an ebony ring and ferrule. The exterior is black silk satin with shoulders of embossed velvet and a large circle of lace around the ferrule. There is a fringe of machine lace and the same lace has been used in the interior lining. Images show the open parasol from the side, the interior, the lace detail, and the handle detail. Overall length 790 mm, diameter 810 mm plus 170 mm trim, Canterbury Museum EC167.67

in Canterbury in about 1853 and was a member of the Legislative Council from 1866 until 1883 (*Press*, 4 August 1897: 2). Her husband was a solicitor. In her obituary it was said that she took little part in public affairs but was a gracious hostess at Millbrook, the family's large house and grounds in Fendalton (*Press*, 6 January 1948: 2). No doubt the parasol would have been useful at the many garden parties Janet hosted. This parasol appears to be the only item in Canterbury Museum's collection that was owned or used by Janet Helmore.



Figure 44. Georgina Bowen's carriage parasol, probably made before 1850, features an intricately carved ivory handle and shaft with a brass sleeve. The pink silk cover has an overlay of handmade lace and the interior is lined with pale blush silk. Overall length 650 mm, diameter 650 mm plus lace overhang, Canterbury Museum PA.1292



Figure 45. Georgina and Charles Bowen. Photograph taken by Alfred Charles Barker, probably in the late 1860s. Canterbury Museum 1944.78.313



Figure 46. Middleton Grange Homestead, a photograph by Alfred Barker, 23 November 1867. Canterbury Museum 1949.148.976

Philippa Nancarrow (née Fosberry)

Another woman that the Museum only has one object relating to was described as “Mrs Richard Nancarrow” in the donation information. The object, the parasol in Figure 54, was owned by Philippa Anna Fosberry (1856–1945) (Fig. 55) “one of the handsome Miss Fosberrys” who married Richard Nancarrow in Hokitika in 1876.⁶ After Richard’s death, Philippa decided to leave Greymouth for Christchurch and, such was the regard that she was held in, was presented with a purse of

sovereigns by 30 leading men of the town to help her in her new life (*Greymouth Evening Star*, 28 March 1901: 4). In Christchurch Philippa rarely appeared in the public eye but no doubt used her parasol when attending social events. The parasol was donated by her daughter.

Emma (Maia) Aston

One of the more modern parasols (Fig. 56) in Canterbury Museum’s collection was owned by a remarkable Māori woman, Emma Susanna May (Maia) Aston (1906–1978).



Figure 47. Carriage parasol with hinged ivory stick, probably made during the 1850s. The cover is made from fawn and blue brocade with lighter blue silk edging and lined with beige linen. The ivory ferrule would have had an ivory ring for hanging the parasol, but this no longer exists. One image shows the open parasol from the side, the other shows the interior. Overall length 715 mm, diameter 620 mm, Canterbury Museum EC151.54



Figure 48. Ellen and William Reeves in front of their residence, Risingholme, c.1880. Canterbury Museum 19xx.2.2078

Maia was born in Dunedin and served as a nursing sister with the Royal New Zealand Air Force during the Second World War and at one point was stationed in Fiji. She was captured by the Japanese and spent time in Changi Prison. After the War Maia was working as a matron for the Colonial Sugar Refinery Company on Viti Levu, Fiji, when a hurricane hit. She was secretary for the hurricane relief committee and worked long hours to make sure relief was distributed. After her return to New Zealand in about 1953 she married her cousin, widower John Morrison Williamson. In later years she worked as a social worker (*Press*, 18 November 1872: 6, 28 November 1972: 6, 25 August 1978: 2).⁷

Conclusion

Sarah Courage's description of "a living panorama" featuring "gay parasols" at an event in Christchurch's Botanic Gardens in 1865 neatly hints at the vivid colours and provides a useful corrective to the black and white photographs from the nineteenth and early twentieth centuries that shape how we imagine the past (Courage, 1976: 227). The 76 parasols held by Canterbury Museum, like women's European dress brilliantly showcased by Claire Regnault (2021), give us a tangible sense of the sartorial theatre of the period that so inspired contemporary artists. One thinks here of Claude Monet's



Figure 49. A walking parasol that was part of a wedding ensemble in 1870. The parasol includes three turned knobs, one of which is on the handle. Both the linen cover and silk lining are unfortunately not in good condition. One image shows the top of the open parasol, the other shows a side view. Overall length 790 mm, diameter 700 mm, Canterbury Museum E157.163



Figure 50. A black silk walking parasol with ruffled lining and trimmed edge owned by Sarah Courage (see Fig. 40 for the interior view). The black painted wood shaft has a black taffeta ribbon bow and an embossed silver knob. Overall length 915 mm, diameter 1040 mm, Canterbury Museum EC150.202

strikingly vibrant *Woman with a Parasol - Madame Monet and Her Son* (1875) or William Powell Frith's *Life at the Seaside (Ramsgate Sands)* (1875) that delighted Queen Victoria and helps us to picture Sarah Courage's "bright patches of colour" in Christchurch 11 years later. Parasols mattered and were owned by women from across society, even though the Museum's collection is biased toward the well-to-do, the most prominent and the well connected. They speak to questions of social status, aesthetics, and the performance of gender, and also offer clues about the rituals and symbolism associated with



Figure 52. Sarah Amelia Courage (1845–1901). Reproduced from Courage, 1976



Figure 51. Another walking parasol owned by Sarah Courage (see Fig. 41 for the interior view). This one has a tree branch style handle and an inner cover in glorious pink, which would no doubt cast a flattering light on the skin of anyone underneath who was pale. Canterbury Museum EC150.203, overall length 920mm, diameter 1030mm

love and flirtation. Parasols provided protection from the harshness of the sun but could be used by determined women prohibitionists to disrupt or cancel meetings in support of "moderate" liquor trading. The collection also highlights broader societal shifts.

By the 1930s, changing fashion trends and a differing relationship to sun exposure meant that the Victorian and Edwardian parasols decreased in popularity. Above all, Canterbury Museum's parasol collection stands as a testament to the efforts of Rose Reynolds, who understood the cultural significance and emotional power of domestic items at a time when curators were more attuned to natural history and ethnology. Most of our parasols were donated by women and the ways that they were passed down matrilineal lines, as with Mary Elizabeth Howard's well-travelled carriage parasol, attests to their place as tokens of remembrance.



Figure 53. Janet Helmore's cream silk Edwardian walking parasol with silk hand-run embroidered lace cover and trim and timber handle. Overall length 890 mm, diameter 970 mm plus 95 mm trim, Canterbury Museum EC150.314



Figure 54. Philippa Nancarrow’s Edwardian walking parasol. It has a cover of cream chiffon covered with black lace. The fabric is woven à la disposition, designed specifically to fit the shape of the parasol. The handle is cut glass and there is cream silk ribbon on the shaft and tip of the parasol. One image shows the top of the open parasol, the other shows a side view. Overall length 990 mm, diameter 1040 mm, Canterbury Museum EC164.4

Limitations

While preparing for the decant of Canterbury Museum’s textile store in 2022 for the Museum’s redevelopment, the idea was born to explore Canterbury Museum’s collection of parasols, all neatly stored in one section of mobile shelving. As decanting was already underway, photographing the parasols, with the assistance of a conservator, was a hasty affair. While writing this article the authors would have dearly loved to revisit the parasols to check details, but access was not possible. Given these constraints, the goal of this article is not to provide a comprehensive overview of the Museum’s collection of parasols, but rather to explain some of its key features and to highlight some of the women who owned these objects.

Another difficulty encountered was accurately dating parasols, a problem faced by other researchers (Hooper 2016: 7; Vazquez 2018: 4). Parasols have been dated to their most likely time periods of early Victorian (1837–1850), mid-Victorian (1850–1870), late Victorian (1870–1901) and Edwardian (1901–1910).



Figure 55. Philippa Fosberry (left) with her sister Eva. Hokitika Museum, 3446

Acknowledgements

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Figure 56. This cheerful cotton parasol dates from the 1930s to 1940s was owned by Emma Susanna May (Maia) Aston. It was probably made in Singapore and may date from Maia’s time there as a prisoner of war during World War Two. One image shows the top of the open parasol, the other shows a side view. Overall length 520 mm, diameter 750 mm, Canterbury Museum EC1989.28

Endnotes

- 1 <https://www.ancestry.com.au/family-tree/person/tree/11968216/person/220163228852/facts> [accessed 6 January 2023].
- 2 <https://www.ancestry.com.au/family-tree/person/tree/19800964/person/202265815859/facts> [accessed 6 January 2023].
- 3 The terms 'umbrella' and 'parasol' are used interchangeably in this article.
- 4 List of passengers on the *Adelaide*, arrived at Port Nicholson 7 March 1840. <https://freepages.rootsweb.com/~ourstuff/genealogy/Adelaide.htm> [accessed 6 January 2023].
- 5 <https://www.ancestry.com.au/family-tree/person/tree/76104349/person/48364998642/facts> [accessed 6 January 2023].
- 6 Macdonald Dictionary Record: Richard Nancarrow, <https://collection.canterburymuseum.com/objects/715636/macdonald-dictionary-record-richard-nancarrow> [accessed 9 February 2023].
- 7 <https://www.ancestry.com.au/family-tree/person/tree/43792483/person/170095622840/facts> [accessed 24 January 2023].

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Ferdinand von Hochstetter's Description of Mere Pounamu in Vienna

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Ferdinand von Hochstetter visited New Zealand in 1858–1859 and undertook an extensive survey in the central North Island and northernmost part of the South Island. He also took great interest in the Māori people and culture, including their descriptive vocabulary relating to geological phenomena and materials. He developed a special fascination with pounamu (nephrite jade) and the way it was used for the manufacture of ornaments, tools and weapons. After his return to Vienna a small selection of specimens formed the basis for early mineralogical analyses. In 1876 he was appointed the founding director of the Viennese Natural History Museum. One of the identified gaps in the collection was a mere pounamu and through Julius von Haast, Director of Canterbury Museum, and the Reverend James West Stack, he was able to purchase one of a pair of mere traditionally manufactured by hand using stone tools by Tamati Tikao of Ngāi Tahu who lived at Wainui, on Akaroa Harbour. The other mere was purchased by the natural history museum in Dresden under the direction of Adolf Bernhard Meyer. This paper presents for the first time an annotated English translation of Hochstetter's original descriptive paper on the mere, published in 1884 and explores the provenance of the two mere held in the museum collections in Vienna and Dresden. Much of the information used by Hochstetter in his paper was provided by Reverend Stack, communicated through Julius von Haast.

Keywords: Adolf Bernhard Meyer, Ferdinand von Hochstetter, James West Stack, Julius von Haast, mere pounamu (nephrite), Museum für Völkerkunde Dresden (Dresden Museum of Ethnology), Naturhistorisches Museum Wien (Natural History Museum Vienna), Tamati Tikao (Ngāi Tahu), Weltmuseum Wien (Ethnology Museum Vienna)

Introduction

Ferdinand von Hochstetter (Fig. 1A), now celebrated as the “Father of New Zealand Geology”, arrived in New Zealand as a member of the scientific contingent on the Austrian *Novara* expedition in 1858. He spent 9 months exploring and surveying in the North Island and northernmost South Island (Johnston and Nolden 2011). During his stay in New Zealand, Hochstetter became

acquainted with pounamu (nephrite) highly prized by Māori who utilised it as a material for the manufacture of weapons, tools and ornaments. Visiting the central North Island volcanic area along with 18 others including Julius von Haast (Fig. 1B) in March–April 1859, he met the powerful and influential Ngāti Tūwharetoa chief Iwikau Te Heuheu Tūkino III (c.1790–1862) at Pūkawa

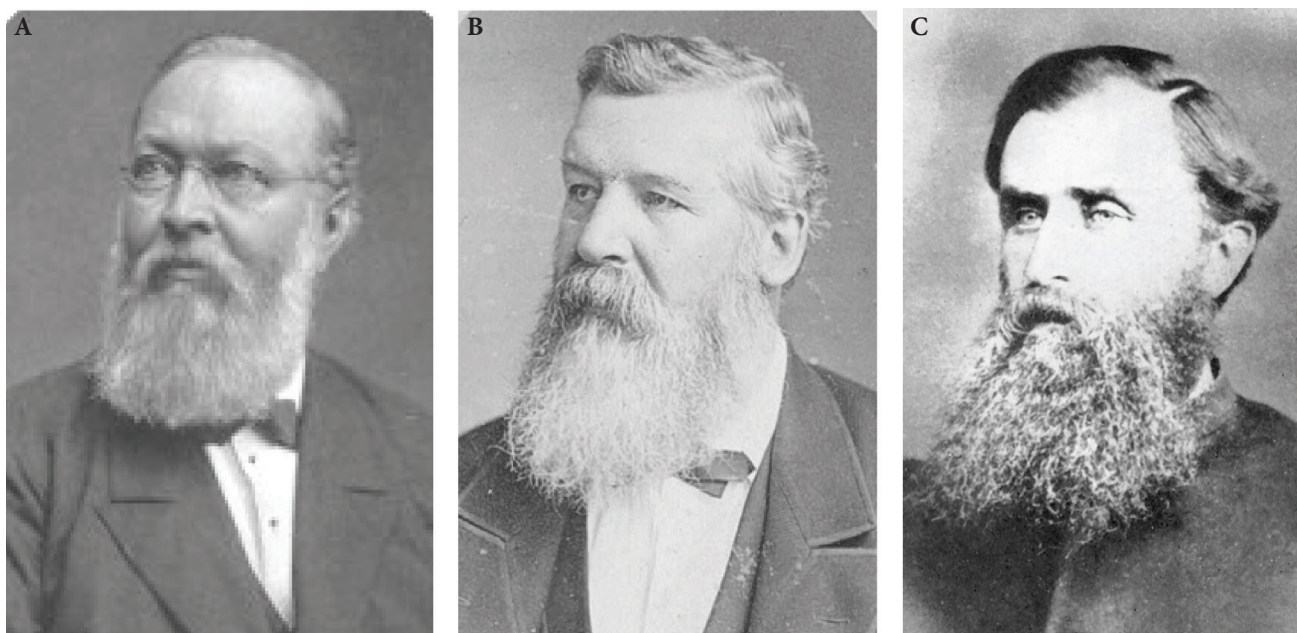
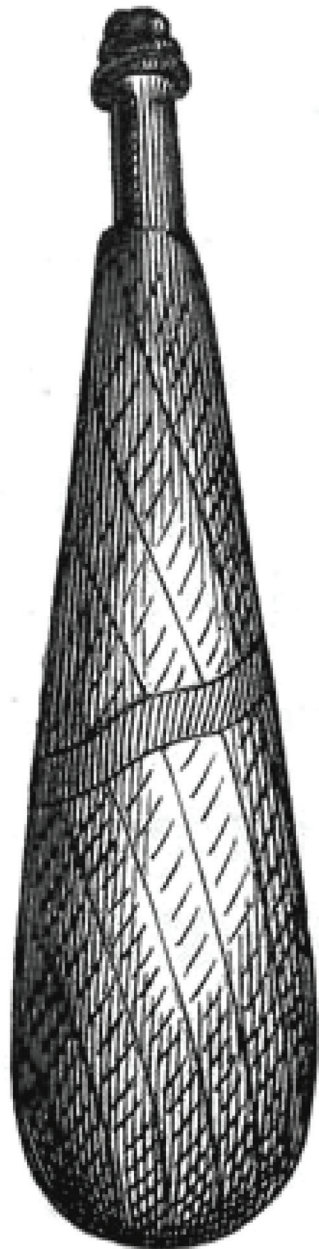


Figure 1. A. Ferdinand von Hochstetter (1829–1884), heliographic portrait by Victor Angerer 1884 (Haardt 1885). B. Julius von Haast (1822–1887), studio portrait by Nelson King Cherrill, Christchurch, c. 1880 (Alexander Turnbull Library, PA2-0471). C. James West Stack (1835–1919), undated portrait in Reed (1938)

A



B



Figure 2. A. Illustration of Iwikau Te Heuheu’s nephrite mere in Hochstetter (1867: 362). B. Lithograph of a painting by George French Angus of Mananui Te Heuheu and Iwikau Te Heuheu (standing) at their pā, Pūkawa, Lake Taupō, and illustrating the nephrite mere that Hochstetter was shown in 1859 by Iwikau Te Heuheu, its inheritor (Angus 1847: plate 56).

on the southwestern shores of Lake Taupō. Here he was shown a magnificent mere pounamu (Fig. 2) described as:

- 15 inches [38 cm] long, and cut out of the most beautiful, transparent nephrite, an heirloom of his illustrious ancestors, which he kept as a sacred relic. He explained to me that this murderous weapon was taken from a hostile chief in bloody combat, that five times already it had been buried with his ancestors, and that the notch on one side of it dated from the last fatal blow struck at a hard skull. (Hochstetter 1867: 362)^[1].

Later that year, in June, Hochstetter visited Coromandel Harbour to examine its gold prospects with Charles Heaphy^[2] who sketched a watercolour portrait of one of the local Māori chiefs, Paora Matutaera (Paul Marshall),

depicting him brandishing an impressive mere pounamu (Fig. 3). Heaphy presented the watercolour to Hochstetter who used it as the source image for the engraved chromolithographic frontispiece in his *New Zealand* (Hochstetter 1867; Nolden 2011).

Hochstetter returned to Vienna in January 1860, and in 1864 published a seminal paper on New Zealand nephrite in which he briefly described mere pounamu:

Above all, the pounamu is sought as a material for the mere, the battle axe of the Maori chief. Such a nephrite battle axe (called mere pounamu), especially when it was wielded by the hand of a brave ancestor in bloody conflict is regarded as a treasure, and is kept with the greatest of care in the family of the chief and passed on from generation to



Figure 3. Watercolour sketch of the Coromandel chief Paora Matutaera (Paul Marshall) by Charles Heaphy (June 1859), (Nolden and Nolden 2011: 33; Hochstetter Collection Basel, HBC 1.4.7). A chromolithograph based on this sketch forms the frontispiece of Hochstetter's 1867 book on New Zealand. Hochstetter writes: "The frontispiece of this work gives us an idea of the half-civilized state in the very exterior of a still living chief. He wears European shirt and neck-lace, over it his Maori mantle, in one hand a gun, in the other a Maori weapon, the mere of nephrite. The albatros[s] feathers of old in their head-dress are supplanted by those of a peacock" (Hochstetter 1867: 215).

generation. Only a few years ago a mere pounamu was found that had been lost in war and was repurchased from the fortunate finder by a tribe near Auckland for the sum of 1,200 pounds sterling; and the most precious gift which the subjugated natives presented to the Queen of England was also a mere pounamu^[3] (Hochstetter 1864; Grapes and Nolden 2021).

In 1876, Hochstetter was appointed Director of the newly founded Imperial Royal Natural History Museum in Vienna, where he developed an increasing interest in New Zealand nephrite and its utilisation by Māori as revealed in a letter to Haast, who was Director of Canterbury Museum in Christchurch:

I have recently been very interested in the nephrite question. Is there still now no locality known where it originates from, and are pounamu pieces still being found? Fischer^[4] bought a boulder of New Zealand nephrite weighing 3 hundred-weight in London a few days ago for £136; it is on its way to Vienna and I want to buy it for the museum. Write to me about nephrite in New Zealand sometime, what you know about it. Are [tiki] and [mere] made of pounamu now rare and what do they cost? (Hochstetter to Haast, 4 January 1878; in Nolden 2013: 189).

By 1881 Hochstetter had set up an exhibit of New Zealand cultural items in a display cabinet in his museum office:

In my office in the museum I have now put together a sample exhibit of our 'New Zealandiana', which fills a wall cabinet 2.5 metres high and 5.5 metres long. Grouped around a Maori bust, which was very well executed by a friend, are cloaks, weapons and numerous beautiful carvings; we have no fewer than a dozen greenstone [tiki], but are missing a greenstone mere. I am therefore very interested in purchasing one of the two you write about, if they have the elegant shape of Te Heuheu's mere as illustrated in my book [Fig. 2], and the price is no higher than £20, or at the most £25. (Hochstetter to Haast, 18 April 1881; in Nolden 2013: 202).

Haast obligingly arranged to send Hochstetter one of the two mere pounamu that were being prepared for him at the time, informing Hochstetter in a letter dated 30 December 1881 of its dispatch. It was still en route on a New Zealand Shipping Company vessel when Hochstetter replied to Haast on 4 April 1882:

The case no. 7 per 'Waimate' with the pounamu mere and other things that you announced in your letter of 30 December has not arrived yet. I am expecting the shipment any day now and am really excited in anticipation. (Hochstetter to Haast, 4 April 1882; in Nolden 2013: 205).

Haast's shipping case containing the mere arrived in Vienna via London nearly 3 months later:

Finally I can send you the good news of the successful arrival of your shipment of one case for our museum and one case for Professor Suess^[5]. Yesterday I unpacked the case, and was especially pleased with the greenstone mere; this really is a very fine piece which gave me much pleasure. Now I ask you to give me some more details on this:

1) *Where does the maker Mahia Tamate Tikao^[6] live, how old is he and how long did he work on the piece?*

2) *How and with what tools and materials did he polish the piece? Could one get the grindstone from him? That would certainly be interesting. (Hochstetter to Haast, 7 July 1882; in Nolden 2013: 207).*

The details of the making of the two mere pounamu and the information asked for by Hochstetter were provided by Haast via his friend, Reverend James West Stack (Fig. 1C), Church of England missionary and an authority on Māori ethnology, and are detailed below. Hochstetter's communication on the mere pounamu was made at the Anthropological Society meeting in Vienna on 12 February 1884 based on this information and occasioned by the presentation of the mere to the ethnographic department of the Viennese Natural History Museum.

Translation of Hochstetter's Paper

The following is an English translation by the authors, of Hochstetter's German language paper published in the journal of the Anthropological Society in Vienna:

Ferdinand von Hochstetter, "Zwei neu angefertigte neuseeländische Mere aus Nephrit", *Mittheilungen der Anthropologischen Gesellschaft in Wien*, volume 14, 1884, pages 25–26.

Two newly manufactured New Zealand nephrite mere and the presentation of one of them.

In 1881 the ethnographic department of the Imperial Royal Natural History Museum, through the mediation of Dr Julius von Haast, Director of the Canterbury Museum, Christchurch (New Zealand), took possession of a mere pounamu [Fig. 4], a stone axe of New Zealand, which is interesting because it has only been made in the last few years by a 68-year-old Maori, Mahia Tamate Tikao, who lives in Wainui on Banks Peninsula in Canterbury Province [Fig. 5]. Simultaneously with this, Tamate Tikao made a lovely copy that is in the possession of the Royal Ethnographic Museum in Dresden [Fig. 4]. Tikao is said to have worked on these two mere for 8 years, which were finished in 1881. The thick cord made of New Zealand flax attached to the handgrip was made by Tikao's wife, Mairehe, from one undyed cord and two cords dyed yellow and black in the old Maori style.

The dimensions of the two new mere are:

| | |
|-----------------------------|-------|
| Length | 400mm |
| Greatest width of the blade | 117mm |
| Width of handgrip | 45mm |
| Width of the pommel | 60mm |
| Thickness of the blade | 12mm |
| Thickness of the handgrip | 20mm |

The piece is uniformly green in colour and has only a few scaly, schistose detachment surfaces.

These two mere are probably the last ever made by a Māori^[7].

According to letters from Rev. J. W. Stack, Duvauchelles Bay, Akaroa Harbour, Canterbury [Fig.5] (received December 1882), I can add the following about the manufacture of the mere: The 'pounamu stones' meaning nephrites, most valued by the Maori for the manufacture of mere, were those found as boulders or cobbles in river beds. The stone, when found, was named after the name of the deity who revealed its location to the Tohunga, who was the guide of the search party. The Maori on the east coast of the South Island were in the habit of setting out in autumn in small groups over the familiar Alpine passes to the west coast [Fig. 5].

After arriving at the coast, the leader of the party, the Tohunga, separated from the group and carried out certain religious ceremonies to determine from the deities, the place where the treasured stone was to be found. When the Tohunga awakened, he was imbued with this revelation, and everyone set out for the designated area and scattered to search all the watercourses. Once the stone was found, it was immediately named after the deity that helped to discover it. In the water the individual blocks of greenstone differ little from one another, since they generally appear grey or brown on the outside.

Since only relatively small amounts of the most valued varieties of nephrite were found in the manner described, the Maori also had to visit the primary in situ locality of the rare mineral in order to take samples from the rock themselves. To do this, they chose a large, round block of nephrite^[8], which showed a mineral structure that was as irregular or intertwined as possible in every direction, so it was sure to be quite tough. They fastened this block to the end of a wooden beam and in this way made a hammer. Three ropes were then attached to the end of the hammer, and the hammer was raised near the nephrite rock at about 80 degrees, with a man holding or fastening a rope, and others using the other two ropes to direct the hammer in such a



Figure 4. The two nephrite mere made by Tamati Tikao. Upper: Labelled as: "A greenstone club, patu pounamu pounamu" (Inv. no. 14.180, Museum of Ethnology, Vienna), purchased from Haast in 1882, among other New Zealand objects, for 27 pounds sterling, considered to be an enormous price for the time (Moschner and Mandl 1967: 29). Dr Georg Sauer describes the same mere: "Another mere, from the Julius Haast collection, was purchased in 1892 [sic 1882]. It is made of dark green nephrite, beautifully cut and polished, it has sharp edges and the handle is decorated with four circumferential grooves. A braided carrying and fastening cord made of flax fibres is threaded through a hole just in front of the handle. Length: 40.2 cm, greatest width 11.7 cm, diameter of the pommel: 0.4 cm", together with a black and white photo (Sauer 2012: 15–16). The dimensions (in mm) and further details are given in the translated text of the descriptive paper by Hochstetter (1884). Lower: Labelled as "Nephrite mere or battle axe" (Inv. no. 5086, Museum for Ethnology, Dresden) – a copy of the one sent to Hochstetter by Julius von Haast. The catalogue describes it as: "The striking weapon – at the same time a status symbol for its owner – was bought by the museum in 1883 through the mediation of the New Zealand geologist Julius von Haast". Specific gravity - 3.03; colour - grass green (15 d-e), lighter in translucent light (up to 13 i-m) (Meyer 1883: 58–59). Inset: Colours defined by Otto Radde's 'International Colour Scale' of 1877 for grass-green given by Meyer (op cit) for the Dresden mere; number = hue (hue numbers 1-42); letter = tone (21 tone letters). No.15 = 2nd transition to blue-green; No.13 = cardinal tone

way that it would point exactly to the desired part to be separated.

Hakapato Ataotu^[9], an old Maori, said that it would take 30 men to work with the hammer when he made his first nephrite collecting trip to the West Coast 60 years ago.

The tools which were used to work the nephrite are:

1. *Kuru Kohatu*, stone hammer, consisting of a round, head-sized block of nephrite, by means of which pieces were chipped off larger blocks. In order to create a straight break, a furrow was ground out beforehand at the appropriate point.
2. *Parihi Kohatu*, a sharp-edged fragment of basalt or some other hard stone, by means of which the furrow was ground out by rubbing backwards and forwards.
3. *Hoanga*, grindstone, any granular sandstone to grind down the rough surface.
4. *Kuru paka*, a mica-rich, but nevertheless quite hard coal shale, as it often occurs on the West Coast, in order to grind out grooves or furrows.
5. *Mata*, an obsidian point, used as a drill to drill holes.

The Canterbury Maori obtained their grindstones from the upper end of Lyttelton Harbour in the immediate vicinity of Quail Island, where a suitable trachytic sandstone is found.^[10] [Fig. 5]

Working on nephrite was a favourite pastime of old chiefs, persevering day and night with the monotonous work. During the day they carried their stone to some secluded resting place (*taumata*) on the summit of a neighbouring hill, where they sat all day with the grindstone, grinding backwards and forwards on the surface of the nephrite, with no other entertainment than being able to observe everything that was going on in the village. A busy chief carried his stone home in the evening, sat down against the wall of his hut so as not to nod off and lose time. When sleep overtook him, he still kept his grindstone in his hand so that he could continue work as soon as he woke up again. With such constant work, he could complete a mere in about 12 months. In most cases, however, it took much longer. (Hochstetter 1884; English translation by Rodney Grapes and Sascha Nolden).

The mere was displayed in the Viennese Natural History Museum opened to the public in 1889, and later the Museum of Ethnology opened in 1928, originally known as Museum für Völkerkunde and more recently as Weltmuseum Wien. Descriptions are published by Irmgard Moschner (Moschner and Mandl 1967) and Georg Sauer (Sauer 2012). Tamati Tikao's other mere was acquired by Adolf Bernhard Meyer (1840–1911), Director of the Dresden Museum for Ethnology in 1883 and was described by him (Meyer 1888) and reproduced in Christine Schlott's papers on the relationship and

correspondence between Meyer and Haast (Schlott 2021, plate IX, Fig.1; Schlott 2022: 45) (Fig. 4).

Background to the Mere Pounamu in Vienna and Dresden

The story of the two mere pounamu made by Tamati Tikao apparently begins sometime in 1872 when Haast asked Stack if he could obtain a representative sample or samples of pounamu from its source area on the West Coast (Fig. 5; see also Grapes and Nolden 2021) for Canterbury Museum. Evidently, pounamu was not so easily obtained at the time:

My dear Haast,

I only got back yesterday from a three weeks' tour. I was on the West Coast, and did not forget your commission about the greenstone. I saw Tainui^[11], but he said he had none; that he is pestered with applications from all parts of the country for greenstone. But I saw splendid specimens in the shop window of a man called Procter^[12], in Hokitika. He was away at Ross, and although I called several times and wrote to him, he would not deal till he returned. I left word with his wife that when he came back I should be glad if he would communicate with me. I am expecting to hear any day. If you can get the raw material from him the Maoris would make it up for a £5 note. I and George^[13] have both tried to get meres but the owners ask £30 a piece. (Stack to Haast, Kaiapoi, 4 October 1872; Alexander Turnbull Library, MS-Papers-0037-138-06-1, -2, -3; reproduced in Reed 1935: 73–74).

From this letter it would appear that Stack was aware that Haast wanted some pounamu objects, i.e. mere, to be made by a Māori craftsman, i.e. Tamati Tikao. Hochstetter states that Tikao worked on two mere for eight years, and as these were completed in January 1881 as indicated below, he would have begun the work in early 1873, post-dating Stack's 4 October 1872 letter:

My dear von Haast,

I hope you will receive the meres safely. The boys have promised to deliver them this afternoon. Tamate Tikao the chief at Wainui [Fig. 5] gave them the last finishing touches, and his wife Mairehe dyed the flax and plaited the cords. I gave them £1 for their trouble. (Stack to Haast, Duvauchelles Bay, 23 January 1882; Alexander Turnbull Library, MS-Papers-0037-138-18-1; reproduced in Reed 1935: 77)

Stack was informed by Haast of their safe arrival in Vienna in October 1882 and replied accordingly:

My dear von Haast,

I am glad to find that Dr. Hochstetter was pleased with your efforts to provide him with the meres, for it is not always that trouble taken on behalf of another is properly appreciated. With reference to your enquiries. It is hard to say the exact time it took to make a mere. I have heard them say that it could be done within the month, but I will get

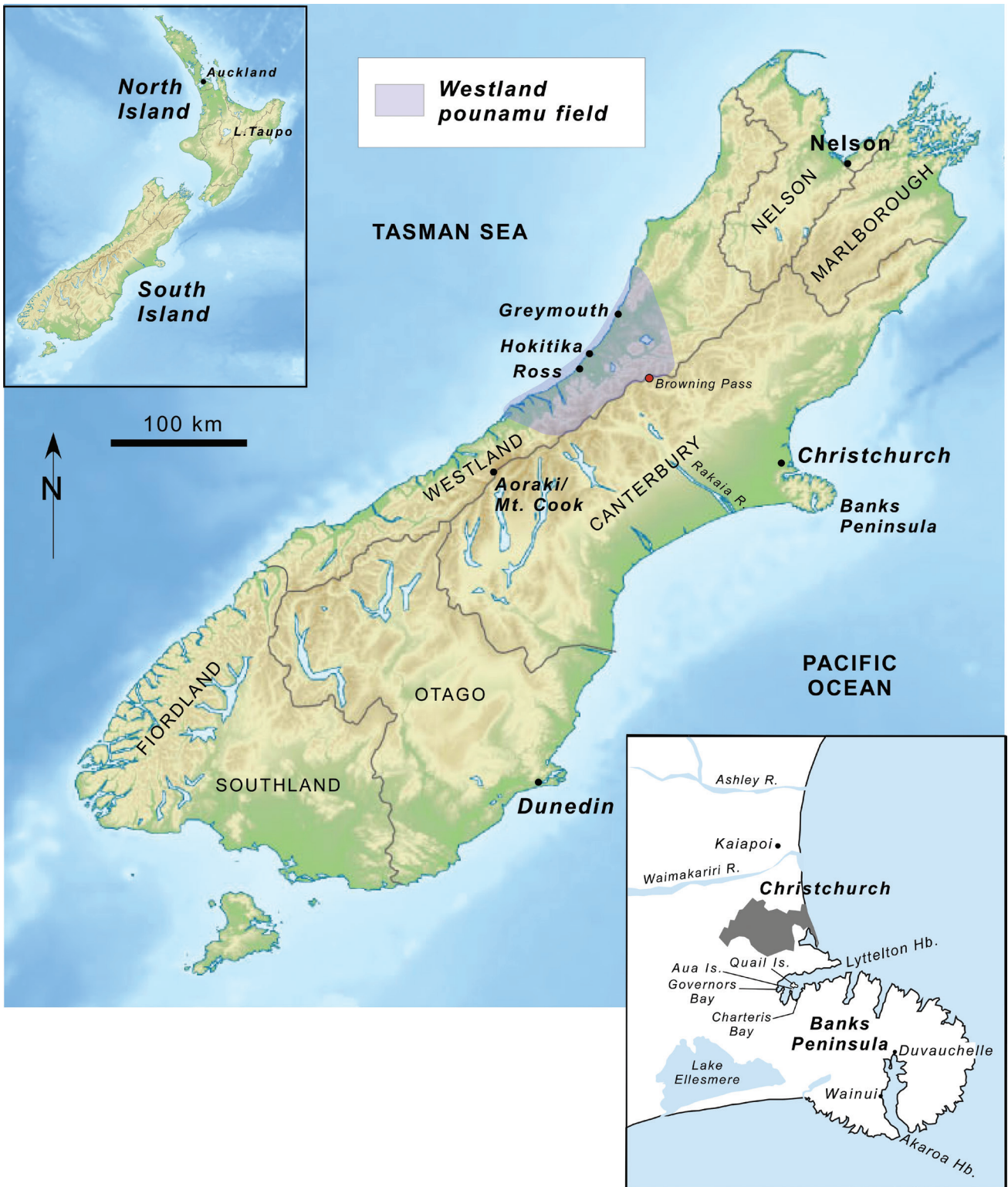


Figure 5. Map of Te Waipounamu (the South Island of New Zealand) showing area of Westland pounamu occurrences and place names mentioned in the text. A traditional route across Kā Tiritiri o te Moana (the Southern Alps) to Te Tai Poutini (the West Coast) taken by Māori to obtain pounamu was up the Rakaia River via Nōti Raureka (Browning Pass), and descending by either the headwaters of the Arahura River or the Styx River to Hokitika. Lower inset: Map of Te Pātaka-o-Rākahautū (Banks Peninsula) showing place names mentioned in the text.

from my old friends the shortest period within their recollection in which a mere was completed.

I will try and obtain the stones you require. I have found several pieces in the old pas on the Peninsula. Tamati Tikao is about 68 years of age.

There were no ceremonies connected with the manufacture of greenstone. I will enclose what I have gleaned on the subject of the manufacture. (Stack to Haast, Duvauchelles Bay, 10 October 1882; Alexander Turnbull Library, MS-Papers-0037-138-19-1; reproduced in Reed 1935: 80).

Stack's cover letter for his promised notes^[14] on the manufacture of greenstone was addressed to Haast on 22 October 1882:

*My dear von Haast,
I enclose a copy of the notes I have made that relate to the manufacture of greenstone by the Maoris.*

I met my old friend Hakopa te Ata o Tu, one of the few real old Maori chiefs – one who knows what he is talking about when you ask him questions relating to the customs of the people prior to the advent of the Pakeha.

He told me I was mistaken about the time it took to make a mere – that I must have been thinking of small axes – that a mere took a year or two years, according to the nature of the stone, and the grindstone used to reduce it. I asked him to help me to get the tools used. He said he could get some, but not all. (Stack to Haast, Duvauchelles Bay, 22 October 1882; Alexander Turnbull Library, MS-Papers-0037-138-20-1; reproduced in Reed 1935: 270–271).

Stack's notes were duly forwarded by Haast to Hochstetter who acknowledged their receipt on 11 February 1883:

I still have to reply to your two letters of October and November of last year and to thank you for the notes by Rev. Stack on nephrite that were of great interest to me. By the way, Stack must have used the same source as I did in regard to the Maori names for the different types of nephrite^[16], as I already wrote about this but more precisely and in more detail in my publication on New Zealand pounamu in the year 1860 [sic 1864], of which I unfortunately no longer have an off-print^[17]. I will use the other notes by Stack for a note in our anthropological journal. I ask you not to forget about the other materials for working on nephrite, even if I have to wait for a suitable shipment. (Hochstetter to Haast, 11 February 1883; in Nolden 2013: 209).

Concluding Remarks

Museums in German-speaking Europe, like elsewhere, were actively collecting material from New Zealand, and Canterbury Museum under the direction of German-born Julius von Haast, was a very popular exchange partner at this time (Nolden, Hofmann, Schedl 2016; Schlott 2021, 2022). However, for some of the most sought after and scarce objects, where there was greater demand than supply, or where museums and other collecting institutions had limited material to offer for exchange, items were also procured by direct purchase from Haast. The mere pounamu were among the rarest and most recognisable of the manufactured objects from New Zealand and commanded a high price, especially when manufactured in the traditional manner using only stone tools. Both the Imperial-Royal Museum in Vienna and the Royal Museum in Dresden held substantial

New Zealand collections, and the mere represented an important addition, completing a series of representative objects, which would often include moa skeletons in the palaeontological collections and a pair of mounted Huia in the natural history department. Canterbury Museum played a key role in the establishment and enhancement of the New Zealand collections of many museums around the world, mostly through a series of exchanges, and in return built its collections on a monumental scale that completely belied the significant limitations on its purchasing budget at the time.

Acknowledgements

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Endnotes

- 1 The pounamu mere seen by Hochstetter was also described and illustrated by Edward Shortland (1812–1893), explorer, Māori scholar and interpreter: “A very celebrated one [mere] which I saw in the possession of Te Heuheu, at Taupo, was of the form here represented, about twenty inches [508 mm] long, the blade about four inches [102 mm] wide, and three-fourths of an inch [18 mm] thick in the middle, tapering on either side to a tolerably sharp edge [illustrated below]. The stone was of a pale green colour, mixed with opal, so as to present a wavy appearance, like that of a mackerel sky, translucent at the edge, and not disfigured by a single black speck. This weapon was named Kaiarero and was obtained from a chief of the east coast, whom an ancestor of Te Heuheu had killed in battle” (Shortland 1851: 34).
- 2 Charles Heaphy (1820–1881), artist and draughtsman of the New Zealand Company, explorer and soldier. Hochstetter became acquainted with Heaphy while he was in Auckland. At that time Heaphy was the chief surveyor in Auckland and had produced a map of the Auckland volcanoes.
- 3 The pounamu mere presented to Queen Victoria is illustrated in Taylor (1855: 244). No scale is given.
- 4 Professor Leopold Heinrich Fischer (1817–1886), University of Freiburg in Breisgau, Germany. Distinguished by his investigations on the origin and character of jade published in his book, *Nephrite and jadeite according to their mineralogical properties as well as their prehistoric and ethnographic importance* (1875).
- 5 Eduard Suess (1831–1914), professor of geology at the University of Vienna. For the correspondence and exchanges with Julius von Haast at Canterbury Museum, including the purchase of a complete moa skeleton, see Nolden, Hofmann and Lein (2016).
- 6 Tamati Tikao (1810–1885), also known as Pukurau, was a highly respected Rangatira and teacher who resided at Ōpukutahi, Wainui in Akaroa Harbour, where he died on 29 September. During time spent living with Reverend Charles Reay in Nelson he became a lay reader for the Anglican Church (Tikao 2015: 25). He was remembered for his contribution to, and recognition of the value of education,

having opened a boarding school for Māori children at Little River in 1860. Thomas Gore Browne appointed him to the position of Native Assessor at Little River and Akaroa. In this capacity he was responsible for the construction of a school, church, and whareniui at Wairewa. Tikao was a close friend of Reverend James Stack and an Anglican lay preacher (see Obituary: Tamati Tikao, *Lyttelton Times*, 1 October 1885: 6). Tamati Tikao was married to Raheira Mairehe Tikao (1820–1900), and biographical notes were recorded by their only child Hōne/Teone Taare Tikao (c. 1850–1927) (O'Regan 1993) and published by Raheira Tainui in the *Journal of the Polynesian Society* (Tainui 1946).

- 7 Hochstetter, like his counterpart Meyer in Dresden, purchased the mere made by Tamati Tikao on the understanding that they had been made by hand in the traditional manner using only stone tools, which substantially added to their price, and relative value for the collections of the two museums, as representative of indigenous craftsmanship.
- 8 Stack records that some greenstone could not be broken by any other stone but greenstone (Supplemental answers by the Rev. J.W. Stack, No.15; Chapman 1891: 515).
- 9 Hakopa Te Ata-o-Tu (c.1800-1883), Ngāi Tahu chief at Kaiapoi, known as a skilled pounamu carver and at the time reputed to be 83 years old.
- 10 The rock collected by the Māori and used as grindstones was the Charteris Bay sandstone, an indurated quartz-cemented medium to fine-grained light-grey to yellow-brown sandstone, from Aua (King Billy Island), close to the much larger Otamahua (Quail Island) at the head of Lyttelton Harbour (Inset in Fig. 5). Robert Speight comments that in places where the stratification of the sandstone is particularly well-developed 'large flags suitable for paving and for making grindstones' are easily obtained (Speight 1916: 373).
- 11 Werita Tainui (d. 1880) a Rangatira of Ngāti Waewae, a hapu of Ngāi Tahu (the principal iwi of the South Island). Ngāti Waewae controlled much of the pounamu trade with North Island tribes from its base at Māwhera (Greymouth) (Fig. 5).
- 12 Thomas Robert Procter (1826-1905) arrived in New Zealand in 1861, making a name for himself as a jeweller and watchmaker as well as advertising himself as an optician, in Hokitika and various other South Island towns, before going to Australia in 1888 (Cole 2017).
- 13 A reference to either Reverend George Cotterill (1814-1902), Christchurch, or Reverend George Peter Mutu (d. 1902), assistant to James Stack (*Press*, 24 June 1902).
- 14 Reverend Stack's notes on Māori manufacture of greenstone: "There are seven, or according to some Maoris, eight different varieties of greenstone, or "Pounamu." [15]
 1. Inanga. A very pale green approaching to a milky white colour.
 2. Kahotea. A dark green, often found with black spots through it. Found in large blocks in the neighbourhood of the Taramakau, Westland. A variety not highly prized
 3. Kawakawa. A very bright green.
 4. Auhunga. Pale green, between (1) Inanga and (3) Kawakawa.
 5. Kahurangi. A pure green, without flaws or spots.
 6. Kahurangi. With (1) Inanga streaks through it.
 7. Kokotangi wai. A soft and brittle variety found at Piopiotahi (Milford Sound), beautifully transparent, with the appearance of water drops inside. Hardens on

exposure to the air.

8. Aotea. A worthless, opaque variety.

The greenstones most highly prized for meres, were those found in detached boulders in the riverbeds. The boulder, when found, was called by the name of the spirit who revealed its position to the tohunga (priest or learned person), acting as guide to the search-party. The natives on the east coast of the South Island were in the habit of going, in small parties, during the autumn, across the ranges by the several passes known to them, to the West Coast [18]. On arriving there, the tohunga of the party would separate himself from the rest, and go through certain religious ceremonies to induce the atua (gods) to show him where greenstone was to be found. When propitious they would grant his request by revealing to him in a dream the spot where the coveted stone was to be found. On awaking the tohunga would tell his companions what had been revealed to him, and they would all start for the spot indicated, spreading themselves across the riverbed as they approached it. When the boulder was found it was at once named after the spirit who helped the party to its discovery. When in the water a greenstone boulder differed very little in appearance from any other, the outer surface being generally grey or brown. As only a limited number of the more highly prized varieties of greenstone were found in the manner just described, the Maoris [sic] depended for the bulk of the raw material they required, upon what they could detach from the masses of greenstone rock, such as Kahotea. The method they adopted for breaking off fragments was to procure what they describe as a "knotty" round greenstone boulder, the grain of which was twisted in every direction. This they fixed to the end of a beam of wood, and having fastened three ropes to the hammer end of the beam-end, they raised it to an angle of about 80 degrees; then, fastening one of the ropes, and leaving a man in charge, the rest of the party would return close to the rock, holding the two ropes in such a manner as to cause the hammer to fall on the exact spot they wanted. Hakopa te Ata o Tu told me that thirty men were employed to work the hammer, on the occasion of his going for greenstone to the West Coast, about sixty years ago. The tools used in the manufacture of greenstone were:

1. Kuru pohatu. Stone hammer, being nothing more than a round boulder of cross-grained greenstone, about the size of a human skull. This was for breaking off pieces from the rough blocks, which had been carried across the Alpine ranges on men's backs to the places of manufacture on the east coast. To ensure a straight fracture a groove was first cut.
2. Parihi pohatu. A sharp-edged chip of trap, or some other hard stone. This was worked backwards and forwards, to cut the groove.
3. Hoanga. Grindstone. Any sort of gritty sandstone for rubbing down the rough surface.
4. Kurupaka. A micaceous stone, plentiful on the West Coast beaches, used for cutting grooves.
5. Mata. Obsidian for pointing the drill or pirori.

The natives in Canterbury procured the grinding stones from the upper end of Lyttelton Harbour, in the immediate vicinity of Quail Island. The manufacture of greenstone was the favourite employment of old chiefs, who worked day and night at their monotonous task. During the day they carried the stone to their "taumata" or favourite seat on the top of

some neighbouring hillock, where they passed the day, rubbing the grindstone backwards and forwards across the surface of the greenstone block, the only relaxation being derived from watching from their look-out for the arrival of strangers. After grinding all day on the taumata, an industrious chief would carry his work back to his house, propping himself up against the wall lest he should be tempted to recline, and so lose too much time in rest. When overcome by sleep, he would still retain his hold of the grindstone, and starting up at intervals during the night, with a peculiar grunt would renew his self-imposed task. By dint of incessant labour a mere might be completed in about twelve months, but if the stone was very hard it took a much longer time. There were no religious ceremonies connected with the manufacture of greenstone, beyond those relating to its discovery in the first instance. It was the article of supreme value amongst the Maoris [sic], and became, shortly before the colonisation of the country, the principal medium of exchange” (Alexander Turnbull Library, MS-Papers-0037-138-29-1, -2, -3, -4; reproduced in Reed 1935: 271–274). In 1881, Professor Fischer (see endnote 4 above) sent a list of questions about the process of making hei-tiki, its meanings, and Māori beliefs and traditions about nephrite, to George Henry Frederick Ulrich (1830–1900), professor of mineralogy and metallurgy, and Director of the School of Mines at Otago University. Ulrich passed these on to the jurist, botanist and ethnologist Frederick Revans Chapman (1849–1936) in Dunedin who translated Fischer’s questions into English and circulated them to men he considered learned in Māori culture, one of whom was the Reverend Stack. Stack’s replies to Fischer’s questions were communicated to Chapman on 20 July 1882 (Chapman 1891: 512–515), and a copy given to Haast on 22 October 1882 to be forwarded to Hochstetter (see above) who made extensive use of them in his 1884 article (see also ‘Chapter II: Nephrite and Germans’, Street (2017): 37–50).

- 15 In addition to the greenstone varieties provided by Stack, Hakopa Te Ata-o-Tu adds matakirikiri (greenstone pebbles), (Stack to Chapman, 31 July 1881; in Chapman 1891: 515).
- 16 Hochstetter obtained the Māori names for different varieties of pounamu from Reverend Richard Taylor’s book: *A leaf from the natural history of New Zealand: or a vocabulary of its different productions, etc., etc., and their native names* (Taylor 1848). Richard Taylor (1805–1873), a missionary of the Church Mission Society in New Zealand, wrote numerous articles and books about the natural and cultural environment in New Zealand.
- 17 An annotated translation of Hochstetter’s 1864 paper: ‘Über das Vorkommen und die verschiedenen Abarten von neuseeländischem Nephrit (Punamu der Maoris) [On the occurrence and the different varieties of New Zealand nephrite (pounamu of the Maori)]’, *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften in Wien – mathematisch-naturwissenschaftliche Classe*. Vol. XLIX, 1864: 466–480, is given in Grapes and Nolden (2021).
- 18 In the 1860s the Public Works Department of the Canterbury Provincial Government asked Reverend Stack for information about Māori travel routes across the Southern Alps to the West Coast. In a letter dated 31 March 1865, Stack wrote: ‘I am sorry to say the only Maori who has gone to the West Coast by the old route is now too infirm

to leave his whare. There are no Maoris now living, except this old man, who know anything about the route beyond what they have heard in the past from others’ (Taylor 1952: 188). This ‘old man’ was probably Hakopa Te Ata-o-Tu. A traditional travel route up the Rakaia River and across Nōti Raureka (Browning Pass), on the main divide of Kā Tiritiri o te Moana (the Southern Alps) (Fig. 5), played a significant role in the Ngāi Tahu people reaching the West Coast and obtaining its pounamu.

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Māori language Our practice is to use the te reo Māori word first followed by the English translation in round brackets. Macrons are standard practice where appropriate except where original texts (without macrons) are being quoted.

Numbers in text To be in words for numbers up to nine and then use numerals, except for measurement and time e.g. 35 kg, 1.290 km, (all to be converted to metric), 6 hours. Comma to be used in four figures or more, e.g. 8,000. All numbers that begin a sentence must be spelled out. Use an unspaced en-dash not a hyphen for ranges.

Omissions When omissions are made in quoted text, use three dots within a sentence, with a space either side, and four dots when the break resumes in a new sentence, with a space on either side of the dots.

Page ranges Use an unspaced en-dash not a hyphen for page ranges.

Quotation marks Use double quotation marks for quoted text, but single within quotations.

Punctuation marks such as full stops or commas should be placed outside the end quote mark unless they are an essential part of the quotation.

Long quotations (over 40 words) should be in italics and indented without quotation marks.

Use single quotes sparingly and only for words that are no longer in common use or those that may not be acceptable today. Do not use for colloquialisms.

Taxonomic authorities Taxonomic authorities should be given at first mention in the text, but not in the abstract or title unless they are the focus of a taxonomic paper. To distinguish a taxonomic authority from a cited reference, the author and date should be separated by a comma and an ampersand used rather than the word “and” (e.g. *Rallidens platydontis* Staniczek & Hitchings, 2014). Taxonomic authorities need not be listed in the references, except when further cited in the text.

In-text citations and reference list

All works cited in the body of the paper must be included in the reference list and vice versa.

The convention of in-text citations in the format author surname (year) and (author surname and year) is used.

Two authors are cited as Fraser and McCarthy (2012) or (Fraser and McCarthy 2012) and three or more authors as Winterbourn et al. (2008) or (Winterbourn et al. 2008).

Multiple references should be separated by semicolons in order of publication date (Ward 1995; Forster and Forster 1999; Wilson 2008).

When referencing quotes or page numbers a colon followed by a space is used (Bradshaw 2009: 220).

Newspaper articles by unknown authors should be cited in the text in the following format (*The Press*, 19 December 1938: 11) and they should not be included in the reference list.

Formatting of references:

Journal paper

Ward JB. 1995. Nine new species of New Zealand caddis (Trichoptera). *New Zealand Journal of Zoology* 22: 91–103.

Whitehead, SF. 2010. A territory of such varied picturesqueness: Gerard Carrington and the beginnings of the Christchurch Tramping Club. *Records of the Canterbury Museum* 24: 15–25.

Book

Bradshaw J. 2009. *Golden Prospects. Chinese on the West Coast of New Zealand*. Greymouth: Shantytown.

Forster RR, Forster LM. 1999. *Spiders of New Zealand and their Worldwide Kin*. Dunedin: Otago University Press.

Fraser L, McCarthy A, editors. 2012. *Far from 'Home': The English in New Zealand*. Dunedin: Otago University Press.

Winterbourn MJ, Knox GA, Burrows CJ, Marsden ID, editors. 2008. *The Natural History of Canterbury*. Christchurch: Canterbury University Press.

Book chapter

Fraser L. 2012. Memory, mourning and melancholy: English ways of death on the margins of empire. In: Fraser L, McCarthy A, editors. *Far From 'Home': The English in New Zealand*. Dunedin: Otago University Press; pp99–122.

Wilson HD. 2008. Vegetation of Banks Peninsula. In: Winterbourn MJ, Knox GA, Burrows CJ, Marsden ID, editors. *The Natural History of Canterbury*. Christchurch: Canterbury University Press; pp251–278.

Unpublished thesis

Malumbres-Olarte J. 2010. Spider Diversity and Ecology in Native Tussock Grasslands of the South Island, New Zealand. PhD thesis. Lincoln: Lincoln University.

Website

Food Standards Australia New Zealand. 2008. Canned foods: purchasing and storing. Wellington: Food Standards Australia New Zealand. [accessed 15 February 2015]. Available from: <http://www.foodstandards.govt.nz/consumer/safety/cannedfoods>

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