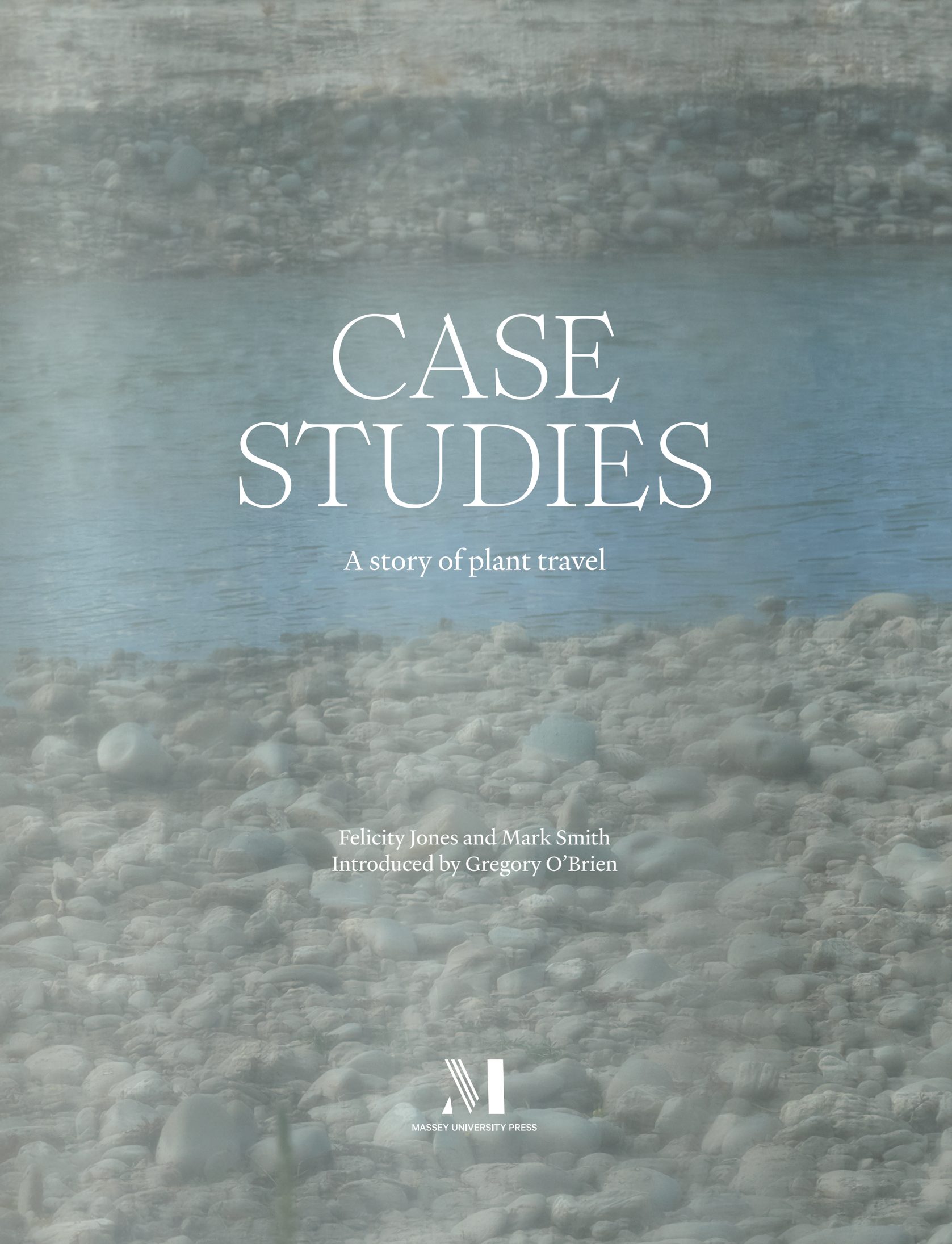
CASE STUDIES

A story of plant travel

Felicity Jones and Mark Smith



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A story of plant travel

Felicity Jones and Mark Smith
Introduced by Gregory O'Brien

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Wardian case, Kew Gardens, London, 2023

Introduction

Gregory O'Brien

To place a glass case containing foxgloves or roses in a stand of native New Zealand bush is to inadvertently make an historical/cultural/political statement. The exact intent and nature of that statement, however, might be a matter of some complexity. This book, *Case Studies*, is firstly an art project, yet it also tells a story of ecological colonialism, harking as far back as botanist Joseph Banks on Captain James Cook's first voyage. With the invention of a glass-sided and sealed miniature greenhouse in 1829, the narrative gathers further momentum. The 'Wardian case' — as the travelling terrarium came to be known — is the centrepiece of *Case Studies*.

'We wanted to highlight the collision of the botanical and cultural worlds,' Felicity Jones has written of the project, which grew out of her longstanding interest in the history of gardening, plants 'and how it is they connect us emotionally to the past'. In the course of her botanical researches she became fascinated by the Wardian case, not only as a vessel for floral arrangement but also as an artistic motif/device. A miniature theatre in which ideas and forms could play.

In 2018, she approached the photographer Mark Smith about the possibility of working together on the photograph which would become the first in the series — *Dr Ward's Case #1, Import, Te Henga* (see page 41). Arriving at the west coast beach not only with a carload of equipment and flowers but also each with their own complement of preoccupations and personal attachments, Felicity and Mark realised at once that this botanical narrative was worth pursuing on a larger scale, longer term, and working collaboratively.

While the legacy of Empire and colonisation forms a dense canopy over the burgeoning groundcover of the project, the resulting works are, at the same time, predicated on subtler and often surprising strands of thought and feeling. Maybe *Case Studies* amounts to a reclaiming of floristry as a serious form of artistic expression — moving beyond conventional or utilitarian definitions. To Felicity's mind, floristry, as both an industry and a mode of expression, is interventionist by definition. It involves the growing, harvesting and arranging of natural materials, with human judgement being exercised every step of the way. The photographic side of the project required similar amounts of planning and preparation, along with much travel time on account of the site-specific nature of the photographic tableaux: 'We photographed gorse out on the west coast, looked at the humble cabbage and the important kūmara at Te Parapa Garden, at the Hamilton Gardens, and continued down-country to where the forestry industry and *Pinus radiata* have established themselves for better or

Pōhutukawa, Te Henga, 2025

A case book

Gregory O'Brien

Conversations and ruminations about and around a Wardian case

For the warp and woof of flowers are worked by perpetual moving spirits.
For flowers are good both for the living and the dead.
For there is a language of flowers.
For there is a sound reasoning upon all flowers . . .
For flowers are medicinal.
For flowers are musical in ocular harmony.
— Christopher Smart, 'Jubilate Agno' ('Rejoice in the Lamb')

Long live the weeds and the wilderness yet.
— Gerard Manley Hopkins, 'Inversnaid'

Thou mayst walk in groves, which being full of majesty will much advance the soul.
— Henry Vaughan, *Anima Magica Abscondita*

I think we should go into the jungle.
— Barbara Anderson, *I Think We Should Go into the Jungle*

A pathway to and from the sea

A number of ghosts walk down the path in Mark Smith and Felicity Jones's *Pōhutukawa, Te Henga*. First among them, the spectral presence of the nineteenth-century amateur naturalist Dr Nathaniel Bagshaw Ward, who might claim responsibility for the frail, wooden structure at the centre of the photograph. Emerging from the shadowy background, I also recognise the poets Mary Ursula Bethell and James K. Baxter, ambling towards us, as warmed by the sheer human-ness of proceedings as by the florescence and mild morning sun. And I imagine, also in the light-dappled growth, the late Michael King and a party of younger historians, Māori and Pākehā, teasing out the significance of such an interplay of natural and human history.[1]

I summon forth other well-meaning ghosts from the immediate lives of the two artists — among them Felicity Jones's mother Pat, a skilled gardener and amateur florist, and her modernist architect father Frank.[2] The rectangular structure of the Wardian case and the floral arrangement within hark back to the modular constructions of her father's work, and to her mother's graceful orchestrations of plant life. In tandem, Mark Smith's thoughts return to older members of the Bethell and Hooker families — habitués of this coastal strip — some of whom he knew personally, and who did much to preserve Te Henga and environs.

And his own family — his father Ray, a zealous gardener, and his

1. Another ghost whose presence both Mark Smith and I would glance on this pathway is painter Don Binney (1940–2012), who kept a studio at Te Henga for over two decades and painted his greatest works there. Mark took an extensive series of photographs of the beach, track and environs for my 2023 monograph *Don Binney — Flight Path* (Auckland University Press).

2. All quotes from Felicity and Mark are from conversations, emails and correspondence with the authors over 2024 and 2025.

Pōhutukawa, Te Henga, 2021
(See also page 151)

late brother Tyrone, who drew trees. (Back in Auckland, Mark's sister Maree is a floral artist, and his elderly mother Lorraine was, in her heyday, an accomplished painter of unconventional, imaginatively charged botanicals.) A regular resident of the beach allotment for over 25 years, Mark is something of a living ghost here himself. It is a place of memories and reminders, a place of returning. Many years surfing the Te Henga break has given him an accentuated perspective on coastline, local weather and ocean conditions, and the ever-changeable nature of it all.

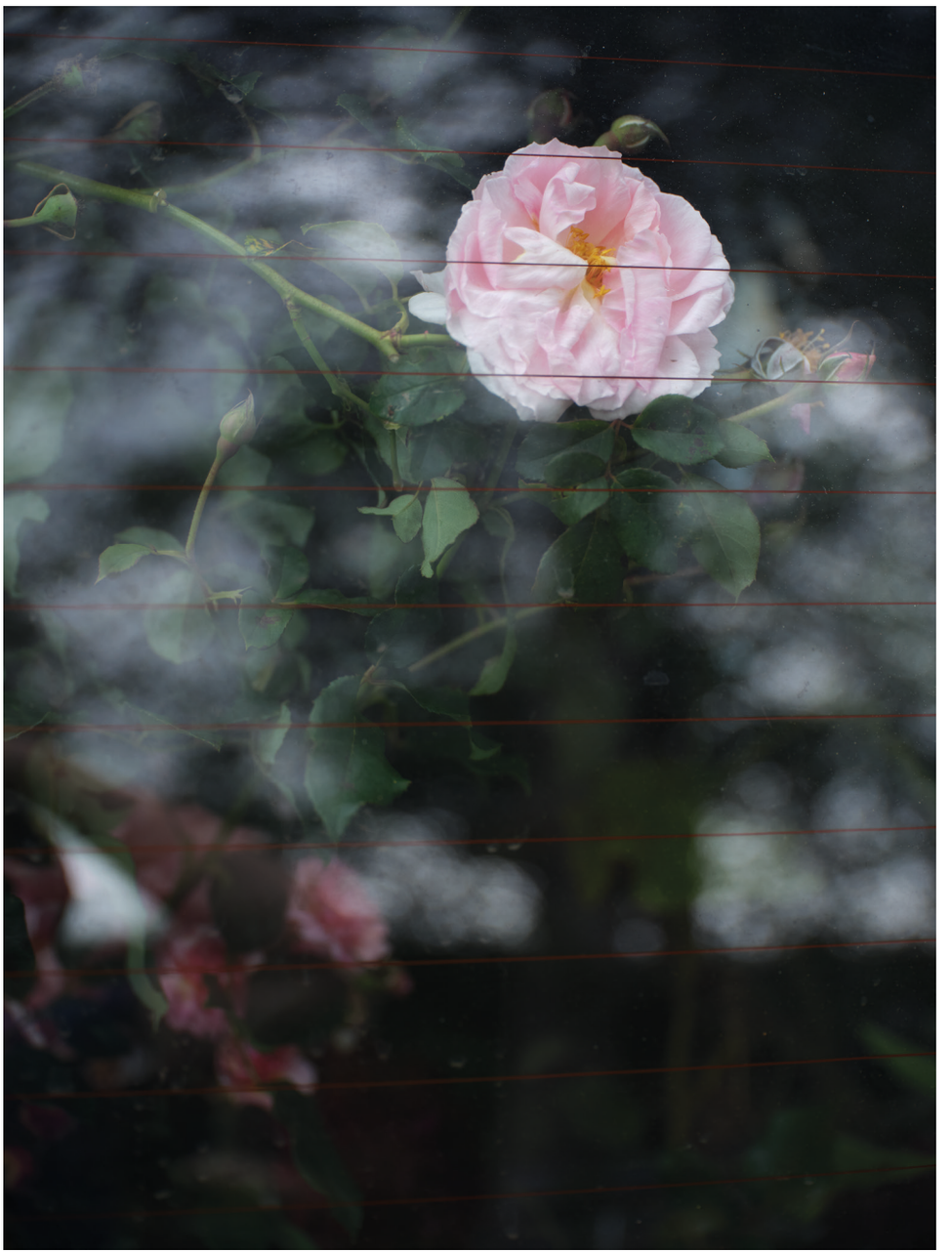
Auckland's west coast extends even further back for Felicity Jones, whose formative childhood summers were centred on the grandiosely named 'Kelvingrove', a tiny weatherboard beach house on a sandy mound at Piha, a few kilometres south of where *Pōhutukawa, Te Henga* was taken. Mark and Felicity's assemblages of carefully chosen plant life speak to their physical location as they do to the aforementioned ghosts and precursors. From the project's start, Mark and Felicity were also mindful of the significance of Te Henga Bethells Beach in Māori tradition as a coastal 'food bowl' and a site of longstanding habitation and ancestral burial. The location serves as a point of origin and a recurrent presence throughout *Case Studies*.

Laden with intimations of journeys real and imagined, roadways and paths also recur throughout *Case Studies*. The track in *Pōhutukawa, Te Henga* leads up to Lake Kawaupaku — the name of which refers to both the resident black cormorants (the lake's guardians) and to the spirits of the dead. The red of the pōhutukawa flowers in the photograph is the colour of the blood of the mythological warrior Tāwhaki, who charted the route from Earth to Heaven but plummeted to his death in the process.

Case Studies also offers myriad paths and routes back through Western culture, by way of Mary Ursula Bethell's *From a Garden in the Antipodes,* Van Gogh's sunflowers, Wordsworth's 'Daffodils', Botticelli's *Primavera,* Dante's 'dark wood' . . . In tandem with extensive plotting and planning, it is an openness of mind and a good amount of happenstance that characterise this collaborative process; it is a manner of working as much as an agenda per se driving the programme. Meanings accrue alongside those that are anticipated.

On the Te Henga path, the Wardian case, well-stocked, might be considered an offering or act of oblation — as much to the gods and to those who have come before as it is to the natural world that surrounds it. Atua, kēhua . . . forest gods and spirits are common across many cultures — as are household gods and family gods. These works are an offering to such, or a summoning forth — just as they are, in the artists' minds, a paying of respect to places, plant species, other life-forms and to previous inhabitants — tangata whenua — and previous visitors — manuhiri. Wash-ins, blow-ins and the rest of us, gathered in and around the Wardian box.

HERE



Longing

Mum's hydrangeas, Marnie's irises, Granny's tomatoes, Uncle Jack's beans, Frans and Magda's orchids, propagations from seeds, cuttings and tubers, treasures passed from one garden to another across generations . . . each conjures up memories of people and their places.

From the beginning, European settlers to Aotearoa brought not just edibles but also flowering plants, a connection to a now distant homeland. Seeds travelled with relative ease, but many plants rely on other vascular methods of propagation. Curiosity about how these plants survived the many months at sea led to our discovery of the Wardian case, and was the catalyst for an ongoing and expanding creative collaboration and discovery.

Our book begins with a focus on plant travel to and from Aotearoa New Zealand, seen through a Pākehā/European settler lens, exploring ideas of nostalgia, home, longing and connection and reflecting our own ancestry and heritage.

Opposite: *Rose, Felicity's van, 2023*

Following pages: *'The Crucifix', Dr Ward's case on set, Te Henga, 2018*

Kūmara and cabbage, Te Parapara, Hamilton Gardens, 2019

The Polynesian ancestors of Māori had to adapt their growing techniques to suit the cooler climate of their new home, and as the first gardeners of Aotearoa they also introduced exotic plants. One of the most successful of these was kūmara (*Ipomoea batatas*) or sweet potato, which was introduced in around the thirteenth century. The kūmara plot at Te Parapara within Hamilton Gardens is a beautiful showcase of these adaptations. We added to this story with a much later European introduction, the humble cabbage, *Brassica oleracea* var. *capitata*. *FJ*

Hydrangeas, Piha, 2019

Ward and New Zealand plants

Luke Keogh

In 1829 the doctor and amateur naturalist Nathaniel Bagshaw Ward placed the chrysalis of a moth, soil and dried leaves inside a glass bottle and screwed the cap on tight and placed it on a windowsill. It was an experiment; he was waiting to see if the moth would hatch. As he waited and watched something else sprouted inside the bottle — a fern and meadow grass. The moth hatched and was let go. But it was the plants that grew inside the bottle that captured Ward's attention.

A keen naturalist, Ward had tried for many years to get the fern to grow in his London garden, but the polluted city air that surrounded his Wellclose Square home prevented it. Inside the bottle, however, the fern thrived.

Ward had discovered a new method to keep his plants alive. Under glass, so long as there was sunlight and moisture inside the case, plants could survive in this micro-environment for long periods. Ward suggested they could survive as long as eight months without watering. The Wardian case was discovered.

The wider implications of the invention were for the long-distance transport of live plants. For much of the eighteenth and early nineteenth century, transporting plants between countries amounted to a great challenge. In 1819 John Livingstone, a keen botanist and surgeon posted to Macao for the East India Company, estimated that only one in a thousand plants survived the journey from China to Britain.

Over the coming years Ward experimented further with plants under glass. In 1833, four years after the first invention, Ward decided to test his invention by transporting two of his cases filled with a selection of ferns, mosses and grasses from London to Sydney, the longest sea voyage then known. For these cases — variously known as 'glazed cases', 'closed cases' or 'Wardian cases' (after the 1840s) — to be successful, they needed to be stowed on the high rear poop deck of the ship which received the most sunlight. The case could be sealed for long periods without watering, but it needed sunlight. Made of timber and glass and only as high as the hip on a sailor, the Wardian case looked like a travelling greenhouse of sorts.

On 23 November 1833, Ward received a letter from Charles Mallard, the ship captain responsible for the two cases: 'Your experiment for the preservation of plants alive . . . has fully succeeded,' he wrote.[1] The plants that arrived in Sydney were thriving.

The next challenge was the return journey. In February 1834, the cases were replanted with specimens from Australia. Eight months later, Ward and his friend George Loddiges, of the famous Loddiges & Sons nursery in Hackney, went aboard the ship in London to inspect the plants. Ward wrote: 'I shall not readily forget the delight expressed by Mr G. Loddiges, who accompanied me on board, at the beautiful appearance of the fronds of *Gleichenia microphylla,* a plant now for the first time seen alive in this country.'[2] Surviving through heat and humidity at the equator and lashing snow on the way to the Thames, the experiment was a success.

The Wardian case, as it would become known, revolutionised the movement of live plants around the globe. The cases were used for over a century. In the

1. Charles Mallard to Nathaniel Bagshaw Ward, 23 November 1833, in Nathaniel Bagshaw Ward, *On the Growth of Plants in Closely Glazed Cases* (John Van Voorst, 1842), 77. See also Luke Keogh, *The Wardian Case: How a Simple Box Moved Plants and Changed the World* (University of Chicago Press, 2020).

2. Ward, *On the Growth of Plants*, 60.

cases, plants had a greater chance of survival when in transit. It was a simple yet revolutionary invention that had a major impact on the movement of species around the globe.

Planting a Wardian case was quite simple. Inside the case first you placed a layer of rocks or broken bricks, followed by a layer of sphagnum moss or leaf litter, and then a layer of soil. Once plants were in the soil, battens were often placed across the inside of the box to hold everything in place. The plants were well watered and often left to settle for a few days or even weeks. Often there was a hole in the base of the case that allowed water to drain before a plug was placed in the hole and they were ready for the journey ahead. Following this the case was closed up and not opened until the plants arrived at their destination.

Over the coming years the Wardian case would be used widely to transport plants. After the first successful transport, Ward's friend Loddiges put into use 500 Wardian cases for his international shipments. In the nineteenth century it would become the primary means for transplanting live plants. In the century or more they were in use, they were utilised by nurseries, botanical gardens, plant explorers and agriculturalists.

*

In the 1830s in the far north at Te Hōreke, in the Hokianga, the settler Thomas McDonnell set up one of the first formal gardens in New Zealand. McDonnell already had an established network from his former life as a trader (in opium among other items) in China and India, and he used these networks to establish not only a timber settlement but also a garden to remind him of Europe. By 1840 Wardian cases arrived at these gardens filled with exotic plants that would not only fill the garden but also spread widely throughout both the north and south islands of New Zealand. Among other plants in this early shipment to reach Te Hōreke was the Italian jasmine (*Chrysojasminum humile*) — not that Italian at all, as it comes from China — which is now listed as an invasive plant across much of New Zealand.

The global network of live plant transports worked on the assumption that any cases sent, in particular from European imperial centres of science, would be returned filled with native plants from that country. And so it was with McDonnell's plants. Kew Gardens sent plants to Te Hōreke with specific instructions that the cases be returned to London with plants unique to New Zealand's North Island. The two Wardian cases were packed delicately by McDonnell's gardener John Edgerley, filled with ferns and trees and other plants, and returned to London.

The Royal Botanic Gardens, Kew, would use the Wardian case extensively to move plants, particularly for their plant hunters and for sending plants to their network of botanical gardens in the colonies. In return many of their cases were returned with unique foreign plants that botanists at Kew would name and describe in their publications.

Throughout the nineteenth century, New Zealand played an important role in these case histories. In the early 1840s, not long after Ward's invention had reached wide circulation, New Zealand plants were some of the first to travel in Wardian cases. In 1842 the first plants to arrive in Wardian cases at the Royal Botanic Gardens, Kew, were from New Zealand. Before any other country around the world contributed, three cases from New Zealand had arrived. The plants were 'fresh' and in a good state.[3] So healthy were the plants in one of the cases that two decades later one of the plants, a rimu tree (*Dacrydium cupressinum*), was still thriving in the Orangery at Kew at over 5 metres tall.[4]

[3.] Letter, William Symonds to William Jackson Hooker, 26 April 1842, in Directors Correspondence, Archives of the Royal Botanic Gardens, Kew.

[4.] Royal Botanic Gardens Kew, Kew Plant Record Books, Inwards 1828–1847, ms.RBGK.


The heavenly bands
Down from a sky of jasper lighted now
In Paradise.
46
Book XI., lines 208—210.

Milton in Aotearoa

Markman Ellis

Miss Streatfield's maid came to ask Mrs Thrale whether she could lend her 'Milk and asparagus lost'. So she sent her Milton's 'Paradise Lost', and this proved to be the object requested.
— Fanny Burney, undated note[1]

[1.] Undated note in Barrett Collection of Burney Papers, British Library, Egerton 3702 B fol. 72.

The Historical Collections Room of the Natural History Museum in London is probably the greatest archive of the history of botany. Housed in a specially designed pod within the Darwin Centre, it is a climate-controlled positively-pressurised room designed to maintain biosecurity, humidity and temperature. Entering it is a reverential experience, almost like stepping into a futuristic white chapel dedicated to the relics of the natural historians. In niches along one wall lie the fat leather-bound volumes of the *horti sicci*, the collections of pressed and dried botanical specimens. The historical collection is built around the Sloane Herbarium, the collection of *horti sicci* assembled by Sir Hans Sloane in the early eighteenth century and later joined by further herbaria: this is a collection of collections.

While I am visiting the herbarium, principal curator Dr Mark Carine takes a volume out of its protective niche to show me specimens of plants collected by Joseph Banks and Daniel Solander in Aotearoa New Zealand. He shows me page after page of specimens, previously unknown to science, collected between their arrival in Aotearoa at Tūranganui-a-Kiwa on 8 October 1769 and their departure on 31 March 1770 from Admiralty Bay, south of Rangitoto ki te Tonga. I take a photo of a page of previously undescribed flaxes, harakeke or *Phormium tenax,* labelled in Banks's hand under the now superseded name *Chlamydia tenacissima.*

Next, Mark brings the *Madeira III* waste book*,* which he writes about elsewhere in this volume. He places it on the large table that fills the centre of the room, announcing: 'This is my favourite item in the collection.' A 'waste book' is used by naturalists to preserve botanical specimens by drying and pressing them between its pages, before removing them and mounting them formally on paper or card. These rough books were used on the voyage as the first stage of plant preservation, as the first repository of the green specimens as they dry out, or exsiccate. In truth, a waste book is barely worthy of the name 'book': it is a bundle of loosely bound sheets of used or 'waste' paper.

By trial and error, Banks had determined that in the humid air of the South Seas 'our plants dry better in Paper Books than in Sand'.[2] Paper, he found, absorbed the

specimens' moisture, so that they would dry slowly, as they were pressed gently into two dimensions. Because the waste book was only a temporary stage in the process of preparing specimens, it is extremely unusual for one to have been kept, especially from the eighteenth century. *Madeira III* — the waste book Banks used for the specimens he collected in Madeira on the way to the South Seas — is battered, damaged and very fragile.

Later, in the museum's library, I'm delivered some further sheets from another waste book from Cook's voyage, discarded and disbound after the botanical specimens were removed for mounting. This allows me to see the whole sheet from which it is assembled, comprising broadsheet-sized sheets of paper (29.5 inches × 23.5 inches; 749 millimetres × 597 millimetres) as taken off the printing press. The waste paper in both of these examples has already been printed on.

'Sheet' is a technical term here: a single piece of paper on which the pages of a book are printed, later to be folded and cut to size, and bound together in 'gatherings' (now commonly referred to as 'signatures'), and then assembled into a volume. Most books were printed on the same size of paper stock — the broadsheet — and so the number of pages that can be printed on each sheet determines the book's final format. In this case, each sheet contains the printed formes of 12 pages, meaning that the book is in 12s, or 'duodecimo' as a bibliographer would have it. This makes a volume around 7 inches by 4.5 inches, about the size of a modern paperback. As the 12 pages are all drawn off the press together on the one sheet, which is printed on two sides, a complicated order must be followed, so that the single sheet can be folded and cut, with each page appearing in the right order in each gathering.

Banks's waste book comprises uncut sheets of Joseph Addison's *Notes upon the Twelve Books of Paradise Lost Collected from the Spectator,* published in 1738.[3] This book has 148 pages: each sheet has 12 pages, printed on each side (so 24 pages in all). The book is made up of six sheets, gathered in signatures ordered from 'A' to 'F'. In the library, I attempt to diagram the pages on each sheet, and conclude they are probably all there, with the exception of the title page.

These waste sheets had been printed more than three decades before they were recycled by Banks and Solander. When this second edition of Addison's essays didn't sell, the printer Jacob Tonson kept the uncut printed sheets, and at some time later sold them to a waste-paper dealer. At the time there was a thriving market for waste paper in London, it being used in various industries for many purposes: packing, binding, baking, or even in the house of necessity as toilet paper. When the same process happened to the unsold sheets of Fanny Burney's fourth novel, *The Wanderer,* in 1817, she was 'revolted' by the idea that the pages of her novel were 'Waste', and would end up lining the pie tins of 'Pastry Makers'.[4] Among the many artisanal and industrial uses for waste paper was the specialist scientific purpose of drying botanical specimens.[5] Banks, in preparation for his voyage with Cook in 1768, purchased at least 200 quires of waste sheets in London, amounting to nearly 5000 sheets in total, for use by him and his naturalists in the South Seas.

The sheets in the Natural History Museum's library are presented flat in large grey archive boxes, wrapped in acid-free paper, which crinkles loudly when I unwrap them. Eighteenth-century paper is of high quality, made of rags and linen, but even so it looks well-worn here, much like the condition of the *Madeira III* waste book that Mark Carine had shown me in the herbarium. The sheets are stained by water, damaged by plant pressings, marked by ink, and penetrated by worm holes. Some still

2. Joseph Banks, 'Endeavour River, July 2 1770', in *The Endeavour Journal of Joseph Banks 1768–1771, Volume 2*, edited by J. C. Beaglehole (Angus and Robertson, 1962), 87.

3. Joseph Addison, *Notes upon the Twelve Books of Paradise Lost Collected from the Spectator* (Jacob Tonson, 1738).

4. Frances Burney, letter 1376, to Longman & Co, 1 February 1826, in *The Journals and Letters of Fanny Burney (Madame d'Arblay), Volume 12: Mayfair 1825–1840* (Oxford University Press, 1984), 639.

5. Simon Werrett, *Thrifty Science: Making the Most of Materials in the History of Experiment* (University of Chicago Press, 2019); Anna Reynolds, *Waste Paper in Early Modern England: Privy Tokens* (Oxford University Press, 2024).

THERE

The returning

Just like Wardian cases returning to the northern hemisphere filled with plants from Aotearoa, so we travelled to the United Kingdom, to where these botanical endeavours first began. We sought out the motherlodes of seed banks and plant knowledge: the Royal Botanic Gardens at Kew, the Chelsea Physic Garden, the Oxford Botanic Garden and the Linnean Society.

In glasshouses, archives and gardens shaped by centuries of exploration we encountered the seeds and descendants of plants collected over the last 250 years. These specimens, preserved down the generations by careful tending, connect past and present and hold within them the reverberations of scientific curiosity, ambition and Empire.

Opposite: *Kew Gardens, London, 2023*

Following pages: *Wardian cases, Kew Gardens, London, 2023*

There are only 15 or so known original Wardian cases left in the world. Eight of them are at the Royal Botanic Gardens at Kew. *FJ*

Opposite and following pages: *The King's Entrance, Chelsea Physic Garden, 2024*

The Chelsea Physic Garden, near the embankment of the Thames in London, is central to any exploration of global plant travel. It was established in 1673 by the Worshipful Society of Apothecaries as an outdoor classroom to train apprentices in general medical and herbal treatments. Teaching continued here until the 1970s, with students training to be pharmacists, the modern-day version of apothecary. Today the gardens contain over 4500 species of edible, useful and medicinal plants. After the Oxford Botanic Garden, Chelsea is the second oldest botanic garden in the United Kingdom, and home to the world's first-ever heated glasshouse. Built in 1723 and stove heated, it was part of then head gardener Philip Miller's quest to mimic growing conditions from across the world, including for tropical treasures like pineapples (*Ananas comosus*). In the Victorian era a new range of glasshouses enabled the growing global collection of plants to thrive. *FJ*

NOW

Whakahokia te pā harakeke o te whanaungatanga . . .

Huhana Smith

Since 2002, my hapū of Ngāti Tūkorehe has been uplifting existing fans of harakeke and replanting them around ephemeral streams and related wetlands in our rohe or region of Kuku, Horowhenua, in the south-west coastal region of Te Ika-a-Māui North Island. As part of this active revitalisation of these coastal wetland treasures, we have expanded the pā harakeke or plantations in the wetlands within our coastal farmlands. The kaitiaki or environmental guardians of our iwi and hapū have, in recent times, been earnestly re-engaging in a number of ways with harakeke, a taonga species within our rohe.

The contemporary artworks by Mark Smith and Felicity Jones aim to respectfully present specimens of this taonga species in natural surroundings, where they are reimaged/reimagined as part of 'case studies'. It is through the Māori concept of cyclical time, in which collective Māori experiences of temporality define and shape experiential reality, that I experience these works.[1] As Māori we acknowledge the past, present and future as all interconnected and flowing rather than following the linear progression usually promulgated within hegemonic, Western-centric temporal understandings.[2] All our Ngāti Tūkorehe environmental engagements with harakeke to date are grounded by this understanding and underpinned by knowledge and experience of tūpuna or ancestors and kaumātua or elders now long gone.

Certain tensions are created when artworks that feature harakeke are not within the Wardian case but rather are attempts to encase or envelope it. Not only is this a unique departure from the duo's other artworks, but also this Wardian case features a longitudinal and latitudinal weave of harakeke strips that cover one side and the top of the case, completed by a rudimentary plaited handle. Is this covered suitcase like making a traveller's luggage unique so it is clearly identifiable and not lost in transit? Or perhaps it is more metaphorical in terms of the weight it bears because the Wardian case remains an historical instrument of nineteenth-century Enlightenment ontologies and imperial processes of industrialised colonisation, and a harbinger of the rampant capitalism that controls and subjugates Nature? If so, this Wardian case suggests the impact of imposed structures of temporal time that aim to dominate Nature.

We know the case usually enclosed a specimen within its glass walls, generating condensation from transpiration so that the plant could live out of its soil context — however, this conversely affects its mauri or life vitality as an isolated specimen entrapped and removed from ecological support and connections to its source

1. P. T. King, D. Cormack, R. Harris, S. L. Paine and M. McLeod, '"Never-ending Beginnings": A Qualitative Literature Review of Māori Temporal Ontologies', *Kōtuitui: New Zealand Journal of Social Sciences Online* 18, no. 3 (2022): 252–67. https://doi.org/10.1080/1177083X.2022.2138467

2. Ibid.

location. In these images we can understand the Wardian case as first determined in 1829 by amateur botanist Nathaniel Bagshaw Ward, whose 'accidental' creation of a micro-climate carry-case for live plants transformed botanical science and enabled the mass transportation and relocation of plants via acclimatisation societies across the globe and back to the epicentre of ecological capture and global taxonomies — Kew Gardens in London, England.[3]

I dwell on the Wardian case as an effective tool by which imperialism extricated plants from their intricate interconnections as related kin to local peoples and their whakapapa or genealogical reference systems and connections to cosmological narratives. Although this harakeke suitcase metaphor might suggest how harakeke soon became well-travelled because of its attractive virtues as a fibre, as harakeke it loses credibility when harnessed by knowledges that do not fully understand the holistic potential of the fibre from a Māori understanding. This is something that both Mark and Felicity are aware of, and it is their intention that the work foregrounds these tensions and gives rise to these kinds of questions.

Harakeke is imbued with connections to Hine-te-iwaiwa, the spiritual entity associated with weaving, childbirth and the moon. Hine-te-iwaiwa is the guardian of Te Whare Pora or the house of weaving, and so the invention of the Wardian case activated the taxonomising of the plant world and severed Indigenous peoples from their intricate knowledge of Te Taiao, the places of plant origin and the biodiverse richness within wetland ecosystems where pā harakeke flourished.

As an edifice of imperialism, the case also exists within other introduced structures and methods of logical entailment and causality where it cannot unravel Indigenous processes of knowing. Indigenous peoples' worldviews remain cognitive maps of ecosystems. Indigenous, customary or traditional knowledge is rooted in local culture, where knowledge is the source of 'knowing' cosmology as inseparable from the multiple tasks of living well in a specific place over a long period of time.[4]

*

At the time Dr Ward was inventing his terrarium, within the Kuku region our ancestors of Ngāti Tukorehe (as allies of the warrior chief Te Rauparaha and at the behest of Waitohi, his sister) were embarking upon organised migrations into Horowhenua so that they would live closely again with new wetlands and coastal lakes and restrengthen new pā harakeke and harness the exceptional properties of harakeke. Harakeke and the metaphor of 'whakahokia ki te whanaungatanga o te pā harakeke' allows to us return to the familial connections that are created by expansive stands of harakeke. Harakeke benefits human wellbeing, birthing processes and reconnections to place from a whole-of-plant perspective replete with whole-of-system rongoā or medicinal qualities.

For all our kaumātua who interpreted our place from when we moved from Te Kaokaoroa o Pātetere in southern Waikato to Kuku — and according to what had been transposed to them or garnered from their own cognitive maps of reasoning, intuition and perception over generations — our roles in Kuku today are to hold fast to these integral hapū relationships to land, wetlands and waterways and to improve the biodiversity and quality of ecosystems. Therefore, our Indigenous concepts of healing and ecological sustainability within supported systems remain location-specific because our experiences of place were arrived at through unique relationships developed between ancestral social and ecological arrangements.

3. Extrapolations sourced from www.kew.org/read-and-watch/how-wardian-case-changed-botanical-world

4. Sourced from the author's PhD thesis, 'Hei Whenua Ora: Hapū and Iwi Approaches for Reinstating Valued Ecosystems within Cultural Landscape' (Massey University, Palmerston North, 2007), 37. See full document at http://hdl.handle.net/10179/2133

‘A second Paradise’
Anne Salmond

The *Endeavour* in Tairāwhiti

On 24 October 1769, the young Quaker artist Sydney Parkinson was in heaven. After several months at sea, cooped up in his cabin and with supplies running low, the *Endeavour* had anchored in a place where at last he was allowed to go ashore. He had spent the day wandering around Uawa, a tranquil, fertile bay on the east coast of New Zealand. That night he wrote in his journal:

> The country about the bay is agreeable beyond description, and, with proper cultivation, might be rendered a kind of second Paradise. The hills are covered with beautiful flowering shrubs, intermingled with a great number of tall and stately palms, which fill the air with a most grateful fragrant perfume.[1]

The *Endeavour*, a former collier commanded by Lieutenant James Cook, had been sent on a voyage around the world commissioned by the Royal Society of London and King George III to observe the Transit of Venus in Tahiti, part of an international mission to try to calculate the distance between the earth and the sun.

The Royal Society party on board the *Endeavour* was led by Joseph Banks, a wealthy young botanist who had funded their salaries and a lavish array of scientific and artistic equipment. It included Dr Daniel Solander from the British Museum, the former favourite student of Carl Linnaeus, famed Swedish naturalist; and their assistants Hermann Spöring, draftsman and clerk, and shipboard artist Sydney Parkinson.

They were accompanied by Tupaia, a high priest navigator from Raʻiatea who had joined them in Tahiti, intent on persuading Cook to expel the Bora Bora warriors who had invaded his home island and driven him into exile. Tupaia was a brilliant man, trained as a tahuʻa or priest at Taputapuatea, a marae or ceremonial centre on Raʻiatea and the hub of an extensive voyaging network. He was a high ranking ʻarioi, a society of artists, warriors, scholars, priests and voyagers dedicated to ʻOro, the atua or god of fertility and war, who travelled to islands as far flung as Tonga in the west, the Marquesas in the east, Hawaiʻi in the north and Rarotonga in the south, where they established marae named after Taputapuatea.

A gifted linguist who had quickly picked up some English, Tupaia became the *Endeavour* crew’s interpreter and guide, and a key source for the local names of many of the plants collected by Joseph Banks and Daniel Solander. As a fellow artist, Tupaia also spent time with Sydney Parkinson in Tahiti, often sketching the same scenes and sharing his knowledge of Tahitian art, including the dyes used by ʻarioi artists. As a high priest navigator, Tupaia had previously sailed to a number of Pacific

[1] Sydney Parkinson and W. Kenrick, *A Journal of a Voyage to the South Seas, in His Majesty's Ship, the Endeavour: Faithfully Transcribed from the Papers of the Late Sydney Parkinson, Draughtsman to Joseph Banks, Esq., on His Late Expedition with Dr. Solander, Round the World* . . . (1773), 97.

Anaura Bay, Tairāwhiti, 2024

islands. During their passage from Tahiti to New Zealand, he shared some of his knowledge of voyaging with Cook, Banks and Robert Molyneux, the *Endeavour*'s master, helping them to draft an extraordinary chart of the islands with which he was familiar.

Before the *Endeavour* sailed from England, the Admiralty had given James Cook a set of 'Secret Instructions'. After observing the Transit of Venus, he was to sail south from Tahiti and search Terra Australis Incognita, the fabled 'Unknown Southern Continent' that was thought to lie in the far reaches of the Southern Ocean. At the places they visited during the expedition, Cook was ordered:

> To observe the nature of the Soil & the Products thereof, the Beasts & Fowls that inhabit or frequent it, the Fishes that are to be found in the Rivers or upon the coast, & in what plenty & in case you find any mines, minerals, or valuable Stones you are to bring home Specimens of each as also such Specimens of the seeds of the Trees, Fruits & Grains as you may be able to collect & Transmit them to our Secretary.[2]

[2.] James Cook, 'Copies of Correspondence etc.' (1768–1771), MS 2, National Library of Australia.

The Earl of Morton, president of the Royal Society of London, had also given James Cook a set of 'Hints', advising that:

> If the Ship should fortunately discover any part of a well inhabited Continent, many new subjects in Natural History might be imported, and useful branches of Commerce set on foot, which in process of time might prove highly beneficial to Britain.[3]

[3.] Earl of Morton, in *The Journals of Captain James Cook on his Voyages of Discovery: Vol. I. The Voyage of the Endeavour 1768–1771,* edited by J. C. Beaglehole (Hakluyt Society, 1955), 516.

Of 'Vegetables', Morton noted, the scientific party should record 'Their powers in Medicine, whether beneficial or noxious, — the other uses to which they are put by the Natives. — Particularly, such as give vivid or lasting colours for dyeing'. As a further thought, he added:

> If any attempt should be made in the latter part of the Voyage, to bring home live plants in Pots, it might be useful to mark upon the Stem of the Plant the Exposition of it, taken correctly by applying a small Mariners compass to the side of the Stem, and observing which part of the Plant fronts the South.
>
> The Latitudes in which seeds are collected, might be noted with the nature of the Soils in which they grew: — And if earths could be brought in Boxes, it might tend to promote natural knowledge.[4]

[4.] Ibid., 517.

Above all, the Earl of Morton exhorted, Cook must:

> Exercise the utmost patience and forbearance with respect to the Natives of the several Lands where the Ship may touch. Check the petulance of the Sailors, and restrain the Wanton use of Fire Arms . . . No European Nation has a right to occupy any part of their country, or settle among them without their voluntary consent . . . Therefore should they in a hostile manner oppose a landing, and kill some men