

Shining BRIGHT

Winter brings Matariki – and with it, opportunities to embrace the wonders and stories of Māori astronomy

WORDS: JACQUI GIBSON

It's almost midnight in the Aoraki Mackenzie township of Takapō/Tekapo. There's not a breath of wind outside, yet the night sky overhead is a swirling cauldron of cloud and stars.

Inside Rehua, the lakeside monolith that houses the Dark Sky Project, 22 people are waiting for our Ngāi Tahu hosts to tell us the weather dance above has calmed enough for tonight's outdoor Summit Experience at the University of Canterbury Mt John Observatory to go ahead.

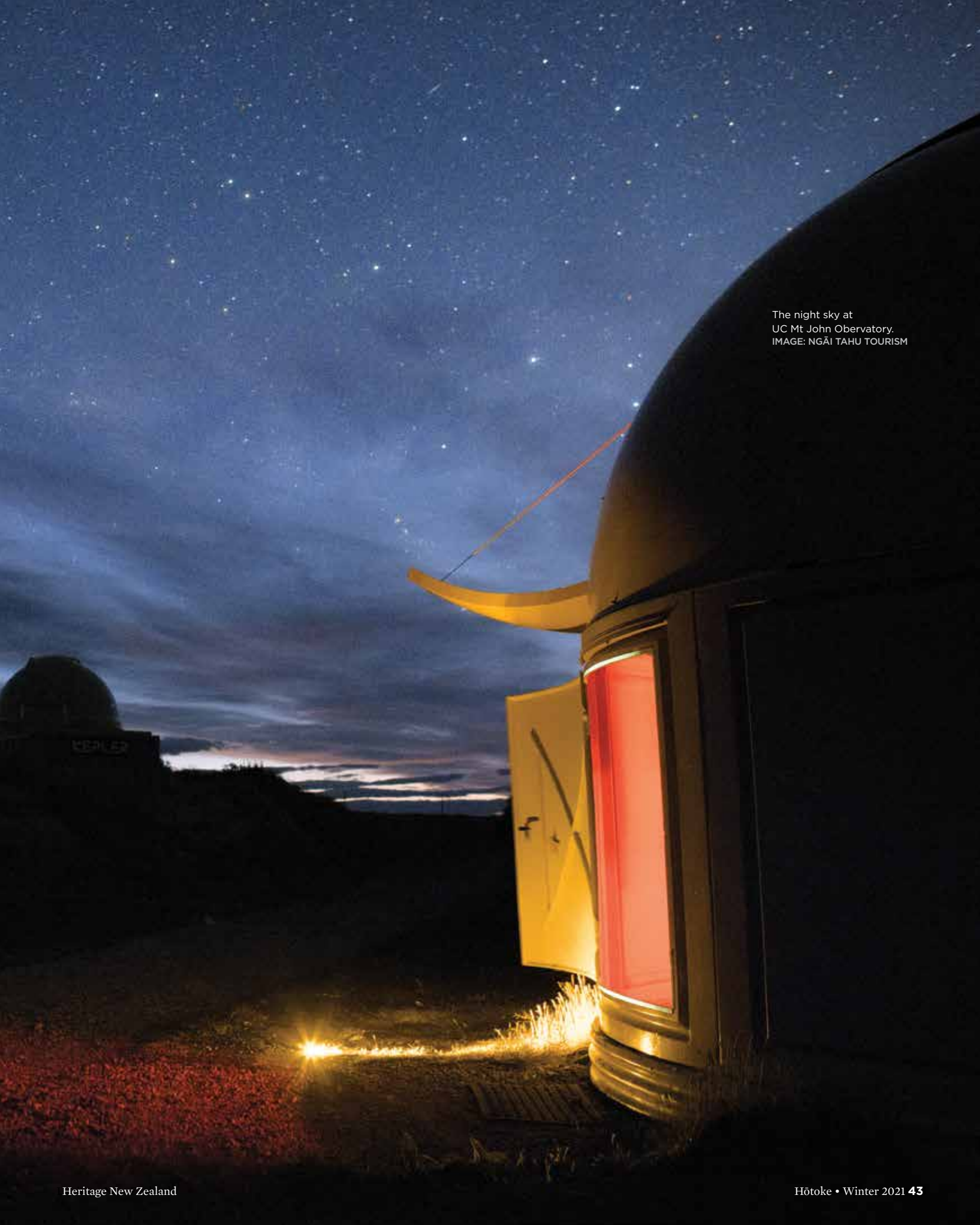
To be fair, it's not just the possible cloud cover that's temporarily dampened the mood in Takapō. Thanks to Covid-19, the region's once humming astro-tourism industry has quietened to a murmur.

Gone are the hundreds of thousands of tourists who flocked here in recent years to experience the internationally accredited Aoraki Mackenzie International Dark Sky Reserve.

Gone too are the many staff who fed and accommodated them and hosted tours.

Tonight, however, the Dark Sky Project's doors are open and, following months in hibernation, its outdoor and indoor multimedia tours are back on.

By 12.15am we get the all-clear. Soon I find myself swaddled in an extreme-cold-weather jacket (the temperature in Takapō at Matariki can hover around zero degrees), jammed into a van of excited tourists and driving past the low-colour streetlights of Takapō up to UC Mt John Observatory.



The night sky at
UC Mt John Observatory.
IMAGE: NGĀI TAHU TOURISM



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All told, we spend around 90 minutes at the research site learning how to identify the southern sky’s three brightest stars (Sirius, Canopus and Alpha Centauri) with the naked eye. Our tour guide prompts us to guess the distance between ourselves on Earth and the closest star, Alpha Centauri (turns out it’s 4.367 light years or about 40 trillion kilometres).

Through scraps of dancing cloud, we pick out the Southern Cross. Then, before we eyeball the solar system with Mt John’s state-of-the-art telescopes, we discuss how cultures around the world have used the night sky to navigate oceans, identify changing seasons and generally make sense of the world around them.

“Polynesian explorer Kupe discovered Aotearoa about 800 years ago in an ocean-going waka steered by the stars, sun and moon,” our guide reminds us as we huddle around her to learn more.

“Jump ahead five centuries and European navigator James Cook used the same night sky to make his way to New Zealand.”

In pre-colonial times, she explains, Māori used a unique lunar calendar – one that began each year with the rising of the Matariki star cluster – to plan seasonal activities such as fishing and gardening.

“Thirty years ago, very few people knew about Matariki. For the most part, Matariki was a discontinued practice. Now it’s becoming part of our evolving national identity”

University of Waikato Professor Rangīānehu ‘Rangi’ Matamua (Tūhoe), author of *Matariki: The Star of the Year*, says public understanding of Matariki is growing.

While his family’s knowledge of Māori astronomy dates back seven generations to tohunga kōkōrangī Te Pikikōtuku, Rangi says his personal interest ramped up in the 1990s as a university student on a mission to learn about, document and pass on the knowledge of his ancestors.

Around that time, he says, Māori groups and iwi such as Kahungunu in Hawke’s Bay were spearheading a revival of Matariki. The Museum of New Zealand Te Papa Tongarewa hosted Wellington’s inaugural Matariki event, which included public lectures, cultural performances and a pre-dawn Matariki viewing.



rangatira: chiefs

rūnanga: tribal councils

te ao Māori: the Māori world view

tohunga kōkōrangī: astronomy expert

whakapapa: genealogy

1 Dark Sky Project Summit Experience.

2 The dark skies of Aoraki Mackenzie.
IMAGERY: NGĀI TAHU TOURISM

By the early 2000s, Auckland and Christchurch were regularly celebrating Matariki, followed by regions such as Nelson with Te Huihui-o-Matariki (The Gathering of the Stars) in 2019.

Meanwhile, in February this year Prime Minister Jacinda Ardern made good on her party's election promise to establish Matariki as a public holiday and set a date for the 2022 celebration (Friday 24 June).

Rangi, as chair of the Matariki Advisory Group, helped determine the date and will advise the Government on future dates and how Matariki should be celebrated and communicated to the public.

"It's wonderful to get to this place," says Rangi, who was the winner of the 2019 Prime Minister's Science Communication Prize for his work in raising awareness of Matariki.

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Mackenzie Tourism Development Manager Lydia Stoddart believes the country's astro-tourism sector is perfectly positioned to share the story of Matariki.

"Here in Aoraki Mackenzie we're dusting off the difficulties of this past year and planning what we believe will become New Zealand's premier Matariki festival."

She says it makes sense to host a major Matariki event in Aoraki Mackenzie.

"Our region is an international dark sky reserve, so it meets strict criteria for stargazing. We have the partnership between Ngāi Tahu Tourism and Dark Sky Project founders Hide Ozawa and Graeme Murray, who established Rehua, our world-class astro-tourism centre combining Māori astrology and science.

"Our community is learning more and more about preserving the night sky. We have strong relationships with the region's operators and our three local rūnanga – Arowhenua, Waihao and Moeraki – so any festival will have strong community buy-in."

Ngāi Tahu Kotahi Mano Kāika Senior Advisor Victoria Campbell agrees.

Also a member of the Government's Matariki Advisory Group, Victoria helped teach Dark Sky Project staff about Māori astronomy, alongside Rangi, in 2019. These days, following a recent move to the region, Victoria is working with Lydia to plan the region's inaugural Matariki festival scheduled for July.

Victoria is also a member of the Aoraki Mackenzie International Dark Sky Reserve Board and is behind the board's bid to see New Zealand become the world's first dark sky country.

"It wouldn't mean changes to the entire country, of course, but would instead link up the various dark sky reserves around the country. It would be



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VICTORIA CAMPBELL'S STARSPOTTING TIPS

When is the best time to see Matariki?

Early morning – just before the sun rises. My whānau and I will observe Matariki during the Takaroa moon phase – the last quarter of the lunar cycle, which is 2 to 9 July.

What should I look for?

A good marker is Puaka Rigel, which is another important star to Ngāi Tahu and te ao Māori. Once you identify Puaka, track left towards Te Kōkota, located within the constellation of Taurus. Matariki is the small cluster of stars to the left of Te Kōkota. Once you identify Matariki, see how many stars in the cluster you can make out.

Where in Takapō can I immerse myself in the dark sky?

Te Manahuna, the Aoraki Mackenzie region, is an international dark sky reserve. No matter where you are, if it's a clear night, you'll enjoy stargazing. This year the region is hosting its first-ever Matariki festival. Visit in July to enjoy stargazing tours, great kai and a magical environment. For more on the festival, go to www.mackenzienz.com/matariki. ■



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wonderful for tourism – don’t forget, 80 percent of the world’s population can’t see the night sky because of pollution, urbanisation and so on. And it would provide another way to promote Matariki. There’s a renewed interest in New Zealand’s unique astronomy story – so I think it’s timely.”

Wairarapa stargazing guide Becky Bateman moved from Wellington to Greytown a couple of years ago after learning about the region’s bid to join Takapō as an internationally accredited dark sky reserve.

Today she offers pop-up astronomy tours and sits on the board of the Wairarapa Dark Sky Association. She says Wairarapa is another region suited to astro-tourism and sharing stories of Matariki.

“We’re much smaller in scale, of course. Tours here tend to be more intimate – and very often wine-related, with so many top-range wineries handy. We’re starting to see growing connections between our tourism sector and local hapū and iwi, which are essential for Matariki stories to be told well.”


That’s one of the major challenges for New Zealand’s astro-tourism industry, believes Aoraki Mackenzie

International Dark Sky Reserve Board Chair Steve Butler.

“I’ve learned a lot about Māori astronomy in this role. All of it has been extraordinary – from its links to Māori navigation to the fantastic connections between the Māori creation story and scientific cosmology.

“But I do think we have to take care to avoid taking ownership of these stories as non-Māori. The right thing to do is to partner with iwi and hapū – the owners of this knowledge – and to share this country’s extraordinary heritage that way.”

To mark Matariki this year, Kaye Paardekooper, owner of Mt Cook Lakeside Retreat, will host a nine-course dinner to reflect the primary stars in the constellation. Kaye has enlisted Victoria to advise her chefs on the final menu, as well as speak to diners about the cultural importance of Matariki and its connections to seasonal planting and feasting.

“As a business, I’d say we’re at the very beginning of our understanding of Matariki. It’s a big leap into the unknown. But we’re excited. Over time, with the right cultural support, we hope to help others better understand and celebrate this special time of year.” 

- 1 UC Mt John Observatory, Takapō.
IMAGE: NGĀI TAHU TOURISM
- 2 Carkeek Observatory, New Zealand’s earliest observatory, built in 1867.
- 3 Rawhiti Higgot at the Carkeek Observatory, Featherston.
IMAGERY: MIKE HEYDON



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REMEMBERING NEW ZEALAND'S EARLIEST OBSERVATORY

Rawhiti Higgott hopes his ancestor's legacy will soon feature in Matariki celebrations in Wairarapa. Rawhiti, whose whakapapa includes Ngāti Toa Rangatira, Ngāti Raukawa, Tūwharetoa, Te Arawa and Te Atiawa ki Waikanae, is the great-great-grandson of Welsh amateur astronomer Stephen Carkeek. In June last year, thanks to hours of research and a formal application, Carkeek's Featherston observatory was listed as a Category 1 historic place.

"I think it's a wonderful part of the region's astronomy story. Would I like to see it rebuilt and become a place for astro-tourism events? Absolutely. To me that adds mana to the site and to my ancestor's legacy," says Rawhiti.

Built on farmland in 1867, the Carkeek Observatory is thought to be New Zealand's earliest surviving astronomical observatory. Kerryn Pollock, Assessment Advisor for Heritage New Zealand Pouhere Taonga, helped to research and assess the listing.

She says: "It's a perfect reminder of how astronomy is embedded in the lives of this region. It's part of a long lineage that started with Māori, was added to by settlers like Carkeek, and has continued through to today."

For more information about the Carkeek Observatory, go to www.heritage.org.nz/the-list/details/9808. ■



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