School Journal

SEPTEMBER 2014

The New Zealand Curriculum

LEVEL 3

TITLE	READING YEAR LEVEL
The Big Dig: Clearing the Manawatū Gorge Slip	5
Three Legends	6
Mahinga Kai Crusaders	6
Sparks	5
Not So Normal	6
The Ski Trip	5
The Game	5

This Journal supports learning across the New Zealand Curriculum at level 3. It supports literacy learning by providing opportunities for students to develop the knowledge and skills they need to meet the reading demands of the curriculum at this level. Each text has been carefully levelled in relation to these demands; its reading year level is indicated above.

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CONTENTS

ARTICLES

STORIES

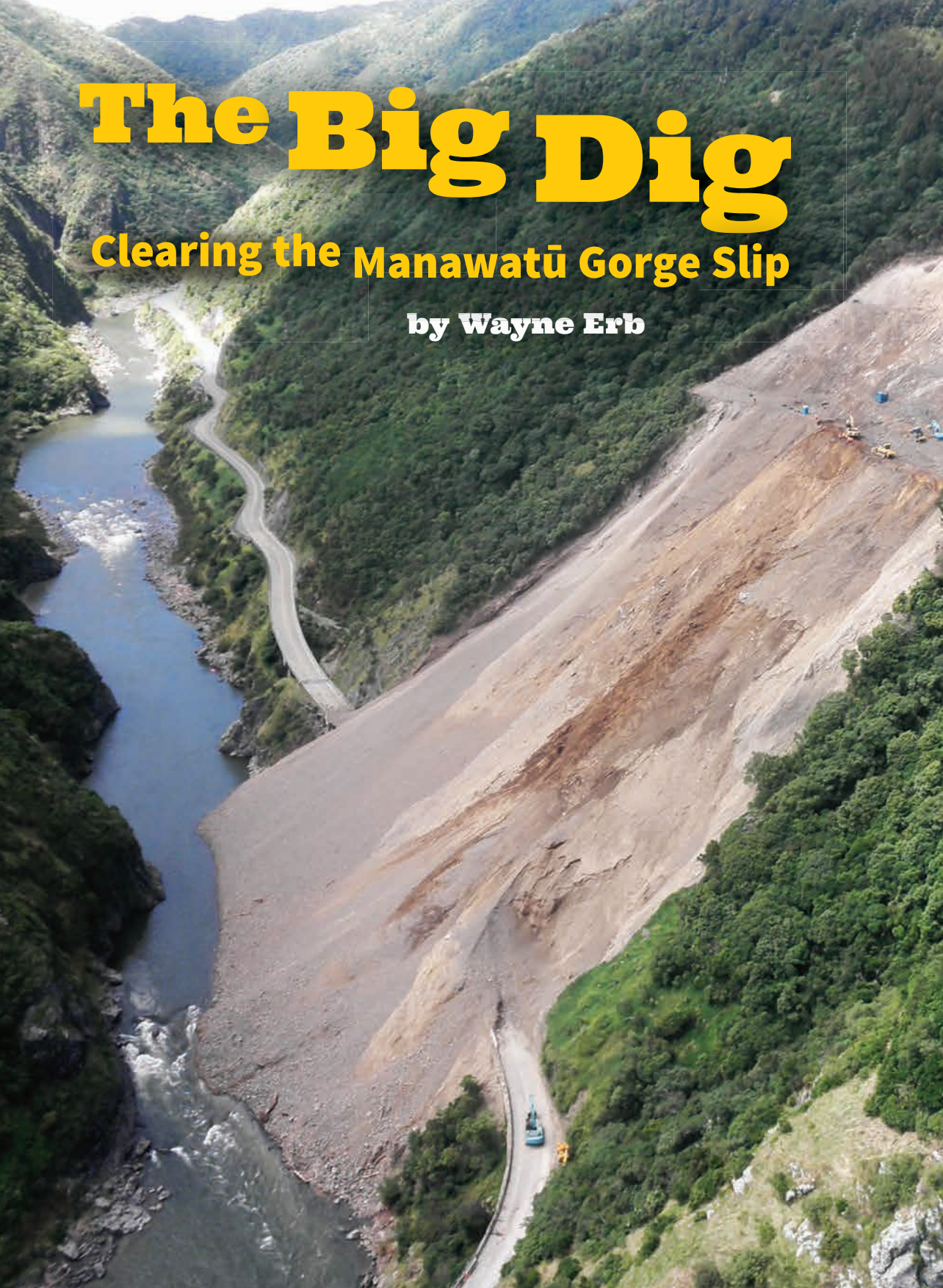
POEM

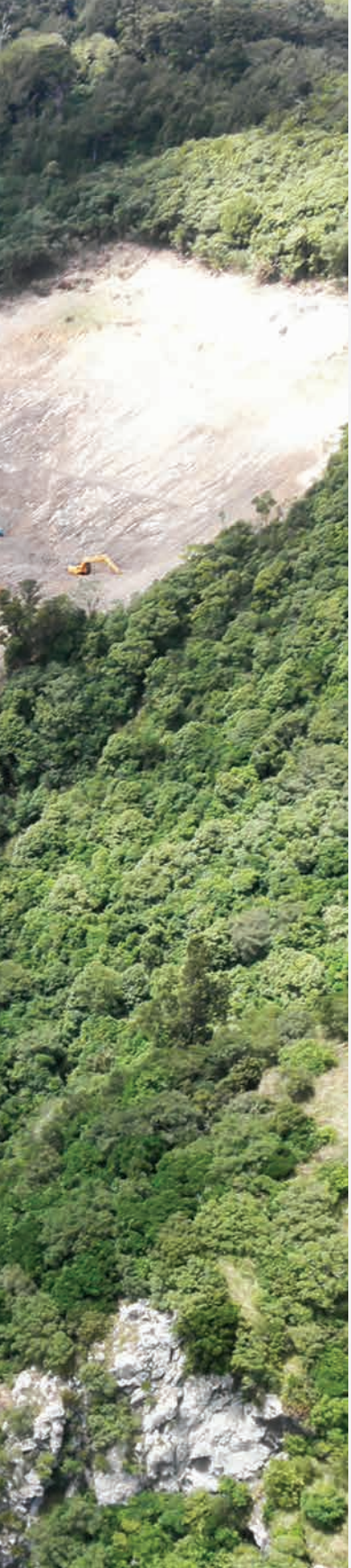
Ministry of Education

The Big Dig

Clearing the Manawatū Gorge Slip

by Wayne Erb





19 August 2011

A winter's night – and heavy rain is pelting down, soaking into the steep hillside of the Manawatū Gorge. Eventually, the ground can hold no more water. A torrent of rocks and mud pours down, burying the highway and spilling into the Manawatū River. When road workers see the slip the next morning, they say it will take a week to clean up. They are wrong. Getting the highway open will take over a year – and an incredible amount of work. It's one of the biggest slips in New Zealand's history.

The Manawatū Gorge

The Manawatū Gorge cuts a deep course between the Ruahine and Tararua ranges. The first road was built in 1871, and rail connected Manawatū to Hawke's Bay in 1891. Although an important route, the gorge has seen trouble before. In 2004, a storm led to several landslides, which closed the road for seventy-five days.

But this latest slip was something else, and work began straight away. Diggers were used to dump rock into removal trucks, but as they worked, more rocks and earth slid down. Meanwhile, detours for the traffic were established over the Saddle Road and the Pahīatua Track. Travel took up to twenty minutes longer on these narrow, winding routes. Trucking firms faced higher fuel costs. People needed to leave earlier for work and trips. Everyone wanted the road cleared quickly. But the problem was about to get worse.


New Plymouth
Tūrangi
Waiōuru
Hāwera
Napier
Hastings
Whanganui
Feilding
Ashhurst
Dannevirke
Woodville
Palmerston North
Pahīatua
Masterton
Wellington
Ashhurst
Pohangina River
Saddle Road
Manawatū River
Manawatū Gorge
Woodville
State highway
Alternative route

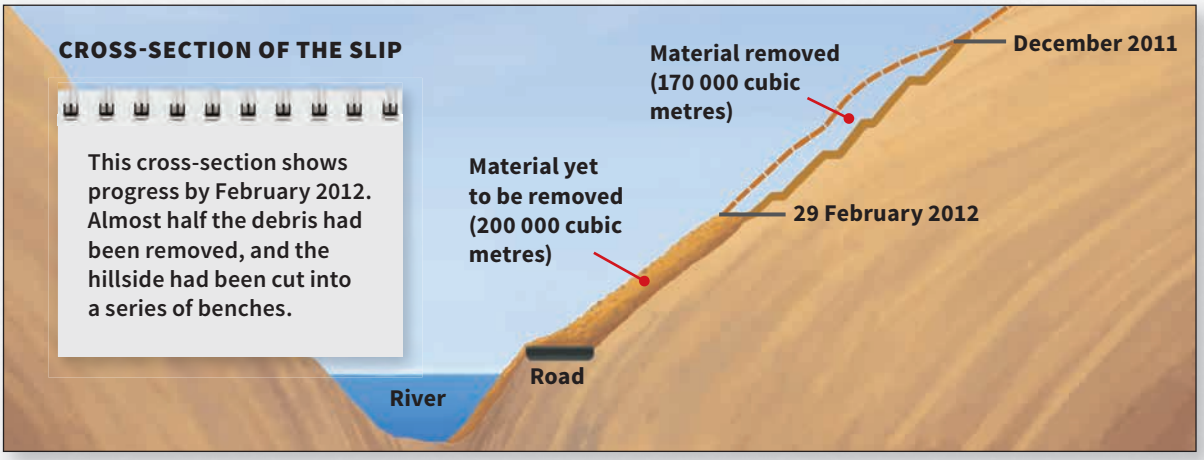
The Slip Gets Bigger

In October, torrential rain sent even more debris crashing down – 20 000 **cubic metres** of it. (That's equal to eight Olympic swimming pools.) David McGonigal, the New Zealand Transport Agency's state highways manager, stopped work because it was too dangerous to operate machinery at the base of the slip. No work could be done for two weeks.

As well as delays, David also faced a quandary. The road couldn't be reopened until the hillside was stabilised. But how should this be done? A team of **engineers** and **geologists** examined the slip and used **lasers** to map the hillside. They learnt there was more unstable material higher up. This meant the loose rock and soil would need to be dug out from the top down. The experts decided to cut the landslip into a series of benches, a bit like giant steps. These benches would stabilise the hillside, reducing the risk of future slips. So workers formed a track through farmland and bush to reach the top of the slip. Then it was time to bring in the Bandit.

The Bandit was a grunty bulldozer whose scoop had been replaced with a big **winch** and heavy-duty cables. It was taken to the hilltop, where it was half-buried in the ground so that it wouldn't budge, no matter what. Heavy diggers were then lowered down the unstable slope while the Bandit held them in place with its mighty cables.

Burying the Bandit ▶



Hard Work

In the days before Christmas, everyone was still hard at work. At the road level, a 20-tonne digger scooped up great masses of rock and earth. A loader dumped the loose material into trucks, which came and went up to 250 times a day. Because there was so much activity, people were assigned as spotters. They used binoculars to scan the hillside for any unstable boulders and had radios to warn of danger.

Changeable weather made working on the slip tough. David McGonigal says that some days, gale-force winds and rain would replace the sunshine in a matter of minutes. "The team was up there a hundred metres above the road, using heavy machinery, completely open to the full force of the wind," he recalls. When it rained, the slip's surface turned to mush.

Workers did all the right things to stay safe, but it was still tough going. "The site was pretty hard to access," David says. "It was a fifteen-minute climb up a steep slope. Crews had to use a rope to pull themselves up. We had to chopper in our supplies – even the portable toilets!"

A Long Wait

In early 2012, the public was told that the highway would remain closed until the middle of the year. It was a long wait – but the road had to be made safe. Some people were affected more than others. Businesses in Woodville had fewer customers; Ashhurst residents had to cope with all the extra traffic that was detoured through their town. These roads weren't built to cope with heavy traffic, and they needed frequent repairs.

The third and fourth benches were dug into the hillside, and after that, the Bandit was no longer needed. This meant that the machines had to keep going and dig all the way down to the road. There was no other way off the hillside. And so the digging continued. By the time the slip was finally cleared, 370 000 cubic metres of rock and earth had been trucked away. If that doesn't mean anything … imagine Wellington's stadium filled with so much dirt that it spills out over the roof.

The third and fourth benches are cut into the hillside.

One Step Forward, One Back …

By May, the team had benched the hillside and cleared the slip from the road. Shortly afterwards, workers levelled a stretch of temporary road. This meant that cars could travel in one direction only, while the repair work wrapped up.

It sounds like the end of the story – but it wasn't. Heavy winter rain caused the Manawatū River to rise 7 metres above its normal level. The floodwater washed away the rock beneath the temporary road. Once again, no one could drive through the gorge. Several bridges had to be completely replaced before the road could reopen. Other teams worked to reduce the risk of new slips. They used a method called "rock anchoring" – inserting large steel rods into the slip face to help secure it. They also laid netting to catch falling rocks and dug channels to drain rainwater into the river.

The All-clear

The Manawatū Gorge road was reopened to some traffic in August 2012. It was opened to all traffic in September. But still the work wasn't quite over. There was a minor rockfall farther along the gorge, and so the highway was closed for one more day while crews blasted large boulders into smaller pieces so they could be removed. Finally, fifteen months after the first landslip, David McGonigal announced that work to restore the gorge road was complete, saying, "No slip in New Zealand's modern history has had such an enormous impact and affected so many people."

GLOSSARY

cubic metre: an amount of material that would fit into a cube that is 1 metre across on each side

engineer: a person who designs things like roads and buildings

geologist: a person who studies the earth through its rocks

laser: an extremely bright light that can be used for measuring and cutting

winch: a machine that hauls things using a cable

SPARKS

BY SARAH PENWARDEN

On the morning of Dillon's seventh birthday, I wake to the sound of him racing down the hall. I leap out of bed and follow him onto the verandah. There, leaning against the railing, is a scooter – a brand new scooter. And it's not just any scooter. It's one that shoots sparks.

"Harley! Look at this!" Dillon shouts, grabbing the scooter. Still in his pyjamas, he scoots up and down the driveway. Then he's out onto the footpath, making such a noise that the kids next door come to see what's happening. The oldest one asks for a turn, but Dillon says no. Not when he's just got it.

"When do you reckon I'll get a go?" I ask Mum.

Dillon sleeps with his new scooter under his bed. He'd sleep with it in his bed if Mum would let him. The next day, he goes to his friend's party. He begs to take the scooter with him, but Mum shakes her head.

Once Dillon's gone, I sneak into his room and slide my hand under his bed. I can feel the deck, cold and steely under my palm. Carefully, I slide the scooter towards me and wheel it outside. I scoot up and down our driveway, turning early, well before the footpath so no one sees. The air rushes past. I drop my foot, and sparks shoot out behind me. I can't stop smiling.

When I'm finished, I put the scooter back, exactly as I found it.

"That's the best present we've bought you in a while," Dad says that night at dinner, ruffling Dillon's hair.

"Yeah, it's awesome," Dillon says. "Thanks, Dad."

"I think maybe it's time Harley had a turn," Mum suggests.

There's silence.

"Andrew, don't you agree?" she says.

"Well," says Dad, "it's a birthday present. Dillon shouldn't have to share it just yet."

"It's been two days," says Mum. "Dillon should let Harley have a go. It doesn't have to be for long."

Dad keeps on chewing, and Mum drops her fork and looks him straight in the eye. "I want our son to learn to share. I don't want him to be selfish."

"He's not selfish. He's enjoying his present. Give the kid a break."

Mum and Dad glare at each other. Then Dad finally looks away. I eat my mashed potato. Dillon eats his beans.

Later, when I'm in bed, I hear raised voices in the kitchen. I can just make out what's being said over the angry rattle of cutlery and the banging of dishes. "You're always defending him," Mum says.

"Someone has to," says Dad. "He's just a kid. He doesn't have to think of other people all the time. He's allowed to enjoy his birthday present."

"He'll turn into a spoiled brat if you're not careful," Mum says. "Is that what you want?"

The dishwasher bangs shut, and Dad stomps past my door.

The next morning, Mum and Dad pretty much ignore each other. Mum makes a big deal of talking about soccer practice, about my game on Saturday. Dad kisses us on the head goodbye – but he doesn't kiss Mum. Although when he comes home that night, they smile at each other, and Dad gives Mum a hug.

I try not to mention the scooter. I try to forget about it. But on Sunday, after hours of watching Dillon scooting up and down the footpath and ignoring me each time I ask for a turn, I go and find Mum.

She sighs and puts her hand on my shoulder. “You’ve been very patient, Harley. It’s time to do something about this.”

Mum goes to the back door. “Dillon,” she calls. “You need to give Harley a turn on your scooter.”

“No,” Dillon yells back. Then he scoots down the driveway.

I walk to the gate and watch Dillon getting smaller and smaller till he’s at the end of our road. Dad comes out, and we wait. Eventually Dillon heads back. As he gets closer, I can see his eyebrows drawn together in a frown.

“Hey, Dillon,” Dad says. “Off that scooter. It’s Harley’s turn.” Dad reaches out to stop him.

“No,” says Dillon. He begins to turn around, ready to ride off again.

“Not an option,” Dad says ominously. “Either you give Harley a go, or I’ll take the scooter off you.”

"No!" Dillon screams. He throws a massive wobbly, something he hasn't done for ages. Dad pulls the scooter away, and Dillon kicks and screams till his face is flaming like a sunset. Then he stamps inside, slamming the front door.

Dad passes the scooter to me – a grim look on his face. "That thing's become nothing but trouble."

I take the scooter to the playground and back. The kids on the swings stop to watch me go past. Somehow it isn't as much fun any more.

When I get back, Dillon's still in his room. He sulks for a few days, slinking around the house, keeping out of our way. Then, one afternoon, he comes home from the playground crying. He can hardly talk between sobs. When he calms down, we find out that he went to the toilet and when he came out, the scooter was gone.

Mum puts her arms around Dillon. Dad raises his eyebrows at me. I raise mine back. Poor Dillon. I go over and put my arm around him. "Don't cry," I say, thinking we're better off without it. And in my mind, I see another kid on the scooter, flying down the footpath, sparks flying.

illustrations by Adele Jackson

The Game

It's only mid-morning, but the heat
beats down. You and your team
in the grass under the trees –
lions in a savannah, quieter
and quieter as the game goes on
until it's only the sound
of the dry-weather insects, their chorus
louder with each wicket down.

You put on the pads, stiff as posts,
and march out to the crease,
a cheer from your team as you go.
In the middle, a ring
of opponents surround you –
their mouths stretched
into hungry, wide grins.

You tighten your jaw, narrow
your eyes, but your stomach is
a stormy sea, churning
brown and green, spitting up wood
on the shore. The bowler
takes his mark. Your hands pulsing,
gripping the bat. Your head –
swollen breakers, thumping
on the sand.

The bowler runs in – closer,
closer. "Here we go," you say softly
to yourself, wishing for that crack,
the sound of ball on bat,
to send that thing hurtling
over their heads. The bowler's arm
wheels around. You steady your feet,
lift your bat, the ball –
is released.

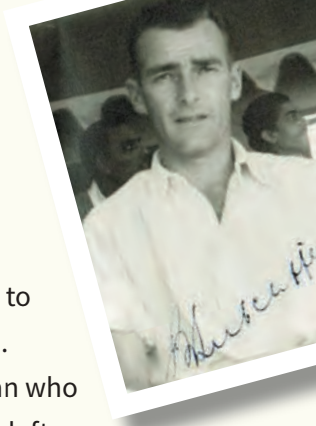
Louise Wallace

Three Legends

by Paula Boock

New Zealand played its first international cricket test match in 1930. Since then, we have introduced many fine cricketers to the world. Some have been tough, dogged players who could dig in for a long innings to save a test match. Others have been natural athletes – fiery bowlers, acrobatic fielders, wily spinners – winning games single-handedly with their skills.

But a few players have done more than excite the current crowd. Their feats have been so great, their ability so spectacular, that they have become lasting champions – legends of the game.



Bert Sutcliffe: Close to Perfect

Bert Sutcliffe first played cricket for New Zealand in the 1940s. In those days, teams sailed on ships for several weeks to play in another country. And there was no television. Huge crowds flocked to the cricket grounds to watch all the international games they could.

Sutcliffe was a teenage sensation – a stylish left-handed batsman who captained his Takapuna Grammar school team to great success. He left school having made more runs and taken more wickets than any Takapuna Grammar player before him. By the age of eighteen, Sutcliffe was already in the Auckland team. When he moved to Dunedin for university, he was welcomed into the Otago team.

It took only one game for Otago for Sutcliffe to jump to the highest level. Delighting the crowds, he scored 197 and 128 against the touring English side. It was a batting display that Walter Hadlee, the then captain of the New Zealand cricket team, described as "close to perfect". Hadlee also said that Bert was "so far ahead of anyone else it wasn't funny". The young prodigy was selected for the New Zealand team that was to tour England in 1949.

Bert Sutcliffe with a New Zealand XI, Basin Reserve, 1944

The tour took the entire summer. In that time, Sutcliffe scored a massive 2627 runs, including seven centuries. Only one man (Don Bradman, who is considered the greatest batsman ever) had scored more runs in a single summer. The English newspapers raved about the young New Zealander. Already, they said, he was "high on the list of the world's greatest batsmen".

Bert Sutcliffe was extraordinary, not just because of his great batting displays or his consistent success. He became a legend because once he made a century he didn't stop. He liked to make huge scores – double and triple centuries. Back in New Zealand, he made scores of 275, 355 … and finally 385 for Otago against Canterbury. For almost thirty years, this was the highest score by a left-handed batsman in the world. Bert Sutcliffe became so famous that in local games, some umpires were reluctant to give him out because they wanted to watch him bat.

In 1953, while on tour in South Africa, Bert Sutcliffe – along with another New Zealand cricketer, Bob Blair – created one of our most famous cricketing moments. Sutcliffe was hit in the head by a bouncer from a South African fast bowler. Back at the ground after a trip to the hospital, Sutcliffe found his team in deep trouble.

The New Zealand cricket team on tour in England, 1949

Some New Zealand Cricket Firsts:

Bert Sutcliffe: Career statistics

	Tests	First-class
Matches	42	233
Runs scored	2727	17 447
Batting average	40.10	47.41
100s/50s	5/15	44/83
Top score	230*	385
Wickets	4	86
Bowling average	86.00	38.05
Best bowling	2/38	5/19

* not out

So, head bandaged, he went out to bat. Sutcliffe attacked the bowling, hitting glorious shots all around the ground. He did this until the second-last wicket fell.

New Zealand's number eleven was Bob Blair. His fiancée had died in the Tangiwai disaster two days earlier, and everyone thought he wouldn't be batting. But as the players began to leave the field, they were stunned to see Blair coming out to bat. In front of 23 000 silent spectators, Sutcliffe and Blair took to the South African bowlers. They hit a quick-fire thirty-three runs before Blair was out. The courage of the two men was an inspiration. Many consider it to be Sutcliffe's finest hour.

Yet despite all these exploits, Bert Sutcliffe played at a time when the New Zealand team wasn't strong. In his forty-two tests against five different nations, Sutcliffe never experienced a single New Zealand win. Perhaps this was part of what made him such a legend.

1930: The first men's test match is played (against England at Lancaster Park, Christchurch).

1935: The first women's test match is played (against England at Lancaster Park, Christchurch).

Debbie Hockley: Teenage Star

Fast forward to 1979, and a different kind of sensation was on the rise. Like Bert Sutcliffe, Debbie Hockley was a teenage cricket star. At fifteen, she was representing Canterbury. Just after her sixteenth birthday, she was named in the New Zealand women's team. This made Hockley the youngest-ever New Zealand test cricketer.

By the 1980s, the men's cricket team had started winning international tests and was a popular side. But the women's team had few opportunities to play internationals. This meant that many people didn't take them seriously. Hockley set about changing this attitude. She stood out on the international stage with her high standards and powerful batting. Journalist Margot Butcher described how Hockley would practise long after others had left the nets. "She dedicated an incredible amount of her spare time to being good at batting."

In 1982, Hockley played in the second women's Cricket World Cup. At the time, the game was changing: a new, shortened version was being introduced alongside the test-match format. These shorter games were limited to fifty overs, which meant a definite winner at the end of one day's play. Coloured clothing, a white ball, and games at night under stadium lights were also part of the new look.

The new one-day internationals (ODIs) were especially good news for women cricketers because they allowed more opportunities for the women's teams to play each other. Debbie Hockley's record is one of the finest in the women's game. Yet she only played nineteen test matches compared with 118 one-day internationals.

1956: The men's team has its first test match win (beating the West Indies at Eden Park, Auckland).

1972: The women's team has its first test match win (beating Australia in Melbourne).

1973: Both the New Zealand men's and women's cricket teams play their first one-day international matches.

Hockley went on to captain the New Zealand White Ferns to several wins, and in 1998, she scored two firsts for women cricketers. She was named the New Zealand Cricketer of the Year, the first time a woman had won a national cricket award ahead of a man; and she became the first professional woman cricketer in the world. This was when New Zealand Cricket decided to pay her to play the game, just like it did the men. The move paid off. Two years later, playing in front of a home crowd, Hockley was part of the White Ferns team that beat Australia in a thrilling final to win the 2000 ICC Women's World Cup. But it would be fifteen years before New Zealand Cricket offered professional contracts to other White Ferns.

Hockley retired after the World Cup win – the highest scoring woman cricketer in the world. But the accolades didn't stop. In 2014, she became the second New Zealand cricketer (after Sir Richard Hadlee) to join the ranks of the great in the ICC International Hall of Fame. Women's cricket was certainly being taken seriously.

Debbie Hockley: Career statistics

	Tests	ODIs
Matches	19	118
Runs scored	1301	4064
Batting average	52.04	41.89
100s/50s	4/7	4/34
Top score	126*	117
Wickets	5	20
Bowling average	29.20	42.65
Best bowling	2/9	3/49

* not out

1973: The first women's Cricket World Cup is played in England.

Tim Southee: Legend in the Making

Is there a current player who's a legend in the making? Only time will tell – although some people have pointed to Tim Southee as a possible champion. One coach, Allan Donald, believes that Southee has the potential to become "the best swing bowler in the world". Former New Zealand fast bowler Shane Bond agrees. "He's got that potential, and he's only twenty-five. I've got no doubt he'll get there."

World cricket has changed again in recent years with the introduction of Twenty20. This is an even shorter form of the game, giving teams only twenty overs each to score their runs. A game is usually finished in three hours. Modern players often specialise in either Twenty20, one-day internationals, or five-day test matches. But Southee is one cricketer who has excelled in all forms of the game. He was just nineteen when he was picked for the New Zealand Twenty20 team. A few months later, he made the test side to play against England. In that match, he was sensational. He took five wickets and then hit seventy-seven runs, including New Zealand's fastest-ever fifty (off twenty-nine balls).

1975: The first men's Cricket World Cup is played in England.

1998: The New Zealand men's team is named the Blackcaps and the New Zealand women's team the White Ferns.

At the 2010 World Cup, Southee was the third-highest wicket-taker. He was quickly snapped up for a season with the Indian Premier League. This is an annual Twenty20 tournament, played in India, in which the best short-form players from around the world are paid big money to take part. The tournament is regarded to be the "richest" in the world. Some players receive over a million dollars to play in the six-week tournament.

Cricket has changed a lot over the years. Bert Sutcliffe and Debbie Hockley played for the love of a game that offered friendship, travel, and excitement – but little money. For Tim Southee, cricket is a lucrative and high-powered career. But he began just like Sutcliffe and Hockley, playing cricket enthusiastically when he was young. His earliest cricketing memory is "getting up early on a Saturday morning, playing Kiwi Cricket with a yellow bat and yellow stumps". His advice to young players with big dreams? "Train hard – and make the most of every opportunity you get."

Tim Southee: Career statistics (as at July 2014)

	Tests	ODIs	Twenty20s	First-class
Matches	34	78	94	64
Runs scored	917	313	358	1533
Batting average	18.34	10.79	10.22	18.92
100s/50s	0/2	0/0	0/1	1/4
Top score	77*	32	74	156
Wickets	123	105	112	241
Bowling average	29.83	31.52	24.41	26.72
Best bowling	7/64	5/33	6/16	8/27

* not out

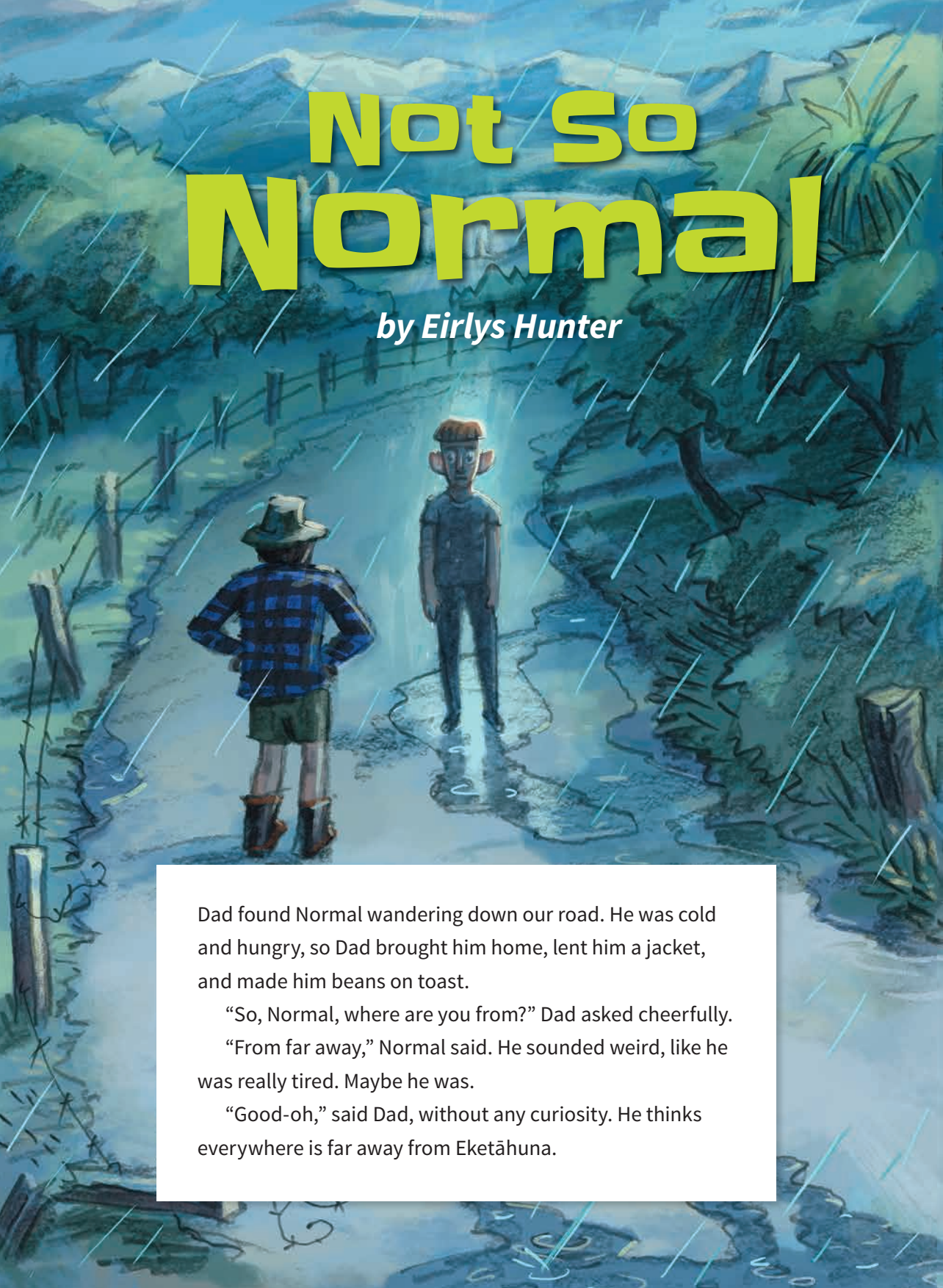
2000: The White Ferns win the women's Cricket World Cup, beating Australia by four runs.

2004: The first Twenty20 International is played (the White Ferns vs. England).

2008: The Indian Premier League (IPL) is introduced.

Not So Normal

by Eirlys Hunter



Dad found Normal wandering down our road. He was cold and hungry, so Dad brought him home, lent him a jacket, and made him beans on toast.

"So, Normal, where are you from?" Dad asked cheerfully.

"From far away," Normal said. He sounded weird, like he was really tired. Maybe he was.

"Good-oh," said Dad, without any curiosity. He thinks everywhere is far away from Eketāhuna.

"I am assessing your resources," Normal added.

"Excellent," said Dad. "Well, I've got a mountain of paperwork to get through – but TJ here will show you round the farm, won't you, TJ?" He gave me a no-arguments look, so I went to the porch and pulled on my gumboots.

Normal wanted to see "meadows", so I took him to the top paddock. That's when I realised he was seriously weird. He produced a metal stick from somewhere and started swishing it through the grass. He even poked at cowpats, flicking over the dry ones and prodding the squishy ones. Was this guy even a grown-up?

"What exactly are you doing?" I asked. Unlike Dad, I was definitely curious.

"I am locate home transport. This is aerial," he said, holding up his stick.

"It's what?" I said. Normal sounded weird – but his grammar was worse.

Then Normal explained. He wasn't from Japan or Romania or South America. He wasn't from Earth at all. Normal was, he said, from T27 – a planet in the Andromeda Galaxy.

Of course I didn't believe him straight off … but then he started to glow. The sun had gone behind the ridge, and as the sky got darker, Normal's skin was looking anything but.

"I am dropped off six weeks ago. Now I am spaceship meeting," he said.

"Was," I said stupidly. Besides, it seemed the easiest place to start. "*Was* dropped off."

But Normal wasn't interested in tense. He held out his "aerial" and started walking quickly across the paddock. "Come!" he called. "I receive signals."

I ran after him. "I don't mean to be rude or anything, but you don't look like an alien. You look, well, ordinary … kind of."

"Ha," he said. I think he was pleased. "I adapt. Dominant species to resemble. Every planet visit. Called Normal, look Normal."

"Except for your voice," I thought, "and your glowing skin and wandering around poking cowpats with aerials. Not so normal there."

"Are there many planets with life on them?" I asked.

"Too many! And many resources. We harvest."

Interesting. I needed to keep the alien talking. "So where is this spaceship anyway?"

Normal waved his aerial and strode off again. "Signal say near."

I looked around. There was the shelterbelt on the north boundary, the patch of bush in the gully, and the old macrocarpas by the water trough. If I were a spaceship, where would I land?

"I can't see anything," I said.

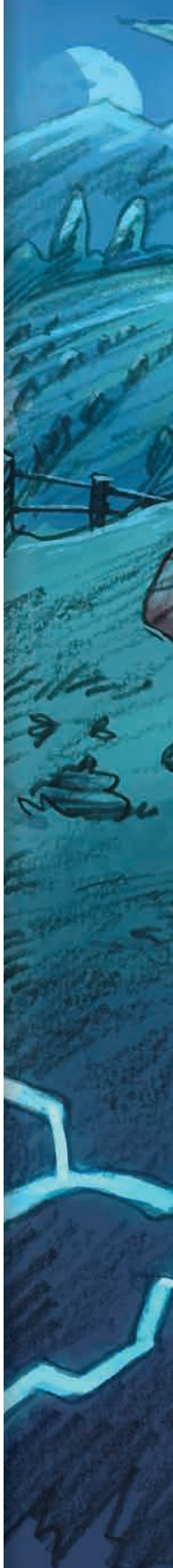
"This does not surprise." Normal held out his finger and thumb. "It is this size."

"What! Are you telling me your intergalactic spacecraft is the size of a pea?"

He nodded. "If that is what you say."

"How can it be so small? That's ridiculous – you're bigger than me."

"Ha," he said, pleased again. "My size up, my size down."



Normal headed towards the macrocarpas, where a few cows were standing around, waiting for something to happen.

"So what are you doing here?" I asked.

"Prospecting. What to see. What to take. Sometimes many things." He looked at Dad's cows. "Sneak come, sneak go … that is us. Then many will return."

"But what about me? I know you're here. That's not very sneaky."

He gave another alien-style laugh. "Ha! Consider. They believe you? T27? Ha!"

I considered. He was right. No one would believe me.

"There!" Normal suddenly shouted. "Bovine creature." He pointed at a cow that was ambling past. "It is there." Normal's aerial was aimed straight at the cow's stomach. Well one of them.

"Looks like she's eaten your spaceship," I said.

Something flashed. Normal was brandishing a lethal-looking knife. "I extract."

"No!" I grabbed his arm. "Dad will go ballistic. Let's wait for it to come out."

I thought we'd better separate 382 from her mates – put her where we could keep an eye on her rear end. With the help of Normal's aerial, we shooed her into the calf shed. Then we waited.

It got properly dark. Dad called from the house. I ignored him. Under the circumstances, I was sure he'd understand. The signals were definitely moving towards 382's tail.

"Is close." Normal took two masks out of his back pocket, the sort surgeons wear, and put one on. He gave the other one to me.

"What for?" I asked.

He looked at me like I was the alien! "You want spaceship in lungs?"

Before I could answer, 382 lifted her tail. Normal leaned forward. I put my mask on.

Splat!


382

Normal crouched excitedly over the steaming heap and plucked a luminous green dot out of the brown mess with a handkerchief. "Ha," he said.

I was disappointed. A mucky hanky was hardly high-tech.

"What happens now?" I asked, following Normal out of the shed.

"Now? You go home. I go home."

"OK," I said. "Safe travels."

But of course, I didn't go anywhere. I just ducked down behind the water trough. I watched Normal walk to the middle of the paddock, spread his handkerchief on the ground, and stand next to it.

I looked around our dark, peaceful farm. *Many resources*.

Then, as I watched, Normal stopped pretending to be human. His limbs and his clothes, including Dad's jacket, just melted away. Dad would be cross about that jacket.

Normal wasn't a body any more. He was a formless blob, a glowing jelly that slumped to the ground. Normal wobbled for a moment, then started to shrink. Tyre-sized, plate-sized …

Prospecting. Dominant species. Sneak come.

Our farm was in danger. Probably the whole world. And no one knew but me.

… dollar-sized …

"Wait!" I shouted and started to run. "We need to talk." Too late.

Just as I reached the blob, the spaceship swelled to the size of a pumpkin, opened up a hatch, and swallowed Normal, just like a computer game. The spaceship pulsed on the handkerchief in front of me. I hesitated. The pulses came faster and faster – the spaceship was about to take off.

I did what anyone would do.

illustrations by Gavin Mouldey

Mahinga Kai Crusaders

by Stanley Walsh

Before the arrival of Europeans – and long before supermarkets – Māori ranged far and wide collecting mahinga kai. Their food and resources came from the land, the forests, the endless coastline, and the hundreds of rivers and estuaries.

Although the tradition of gathering mahinga kai is fast disappearing, two Ngāi Tahu men are determined to keep it alive. One is taking a direct approach, passing his skills on to anyone who wants to learn. The other is harnessing the Internet to ensure knowledge of mahinga kai spreads across the globe.

A Rich Man

Karl Russell considers himself a rich man. He identifies as a kai crusader, living off the land in the same way as his tūpuna. Like them, everything Karl eats he has grown, hunted, traded, or collected himself.

It isn't easy being a kai crusader. It's wet and cold wading up a river in the middle of the night to spear slippery tuna. And Karl follows the seasonal traditions of the Ngāi Tahu calendar, which can mean working long days, especially in summer and autumn, when food is plentiful. Because some of the mahinga kai needs to last the winter, Karl also works to ensure it's properly stored.

"You don't get rich doing this mahi," Karl says. "Sometimes you've got to stretch the dollars a fair way." But the reward is eating the best food nature can provide – and not having to go to the supermarket to put a meal on the table.

So what exactly is mahinga kai? According to Karl, it's anything edible that can be grown, collected, or caught close to home. "If it runs, walks, flies, or swims – then I'll eat it," Karl says. Karl lives on the marae at Arowhenua, near Temuka. His whānau have hunted, gathered, and traded there for generations. "I call this paradise for one simple reason," Karl says, waving his arms in a big, wide circle. "Within two hours of my whare, I can collect all the kai I want. This place is my supermarket."

In the last month, Karl has picked blackberries, plums, apples, pears, and watercress. "When kai is in season, you collect it. When it's abundant, you share it," he says. A friend has just dropped off a sack of Māori potatoes that will last Karl all winter. Te Rūnanga o Arowhenua also has a huge vegetable garden, which grows right beside the whare kai.

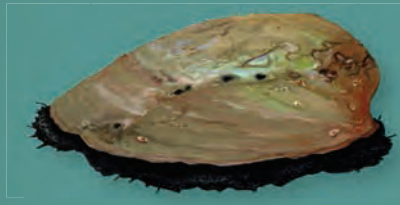
From the nearby beaches, Karl collects kaimoana: sweet-tasting tuaki, kūtai, pāua, and kina. He used to catch cod, tarakihi, kahawai, and elephant fish right off the beach. But these days, he says it's much harder to catch a feed, especially with all the large fishing boats that now trawl off the coast. From the lagoons and estuaries, Karl harvests kanakana, pātiki, inanga, herring, trout, salmon, and tuna. When he was a boy, Karl remembers they'd sometimes catch five hundred eels a night. These would be shared around all the local families.

"There was always enough for everyone," Karl remembers. "In those days, the rivers were bigger, with better backwaters for tuna to live in. But now farm irrigators are sucking them dry."

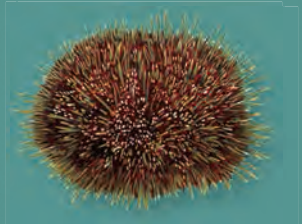
Karl has seen a lot of environmental changes. About this, he says: "Without clean water, there is no environment. Without the environment, there is no kai. If we don't have kai, we don't have a whakapapa. That's the bottom line."

tuaki

kūtai



pāua



kina

kanakana

pātiki

inanga

Several times a year, Karl and his whānau head into the hills to hunt game. They catch rabbits, hares, pigs, goats, deer, chamois, and thar. Then they make salami, saveloys, sausages, and bacon. “We store hundreds of kilograms of meat for those times when fresh food runs short,” Karl says. In winter, he goes south to harvest tītī from the Tītī Islands. Closer to home, and in season, he hunts ducks, geese, swans, and even seagulls. Sometimes he collects their eggs to cook in a hāngī.

If all this sounds like a lot of hard work – that’s because it is. “But what would happen if I didn’t keep the tradition of gathering mahinga kai alive?” Karl asks. “Those skills would be lost forever.” As a boy, Karl was taught what he knows by his whānau. They worked together over an open fire in the cooking shed behind the marae.

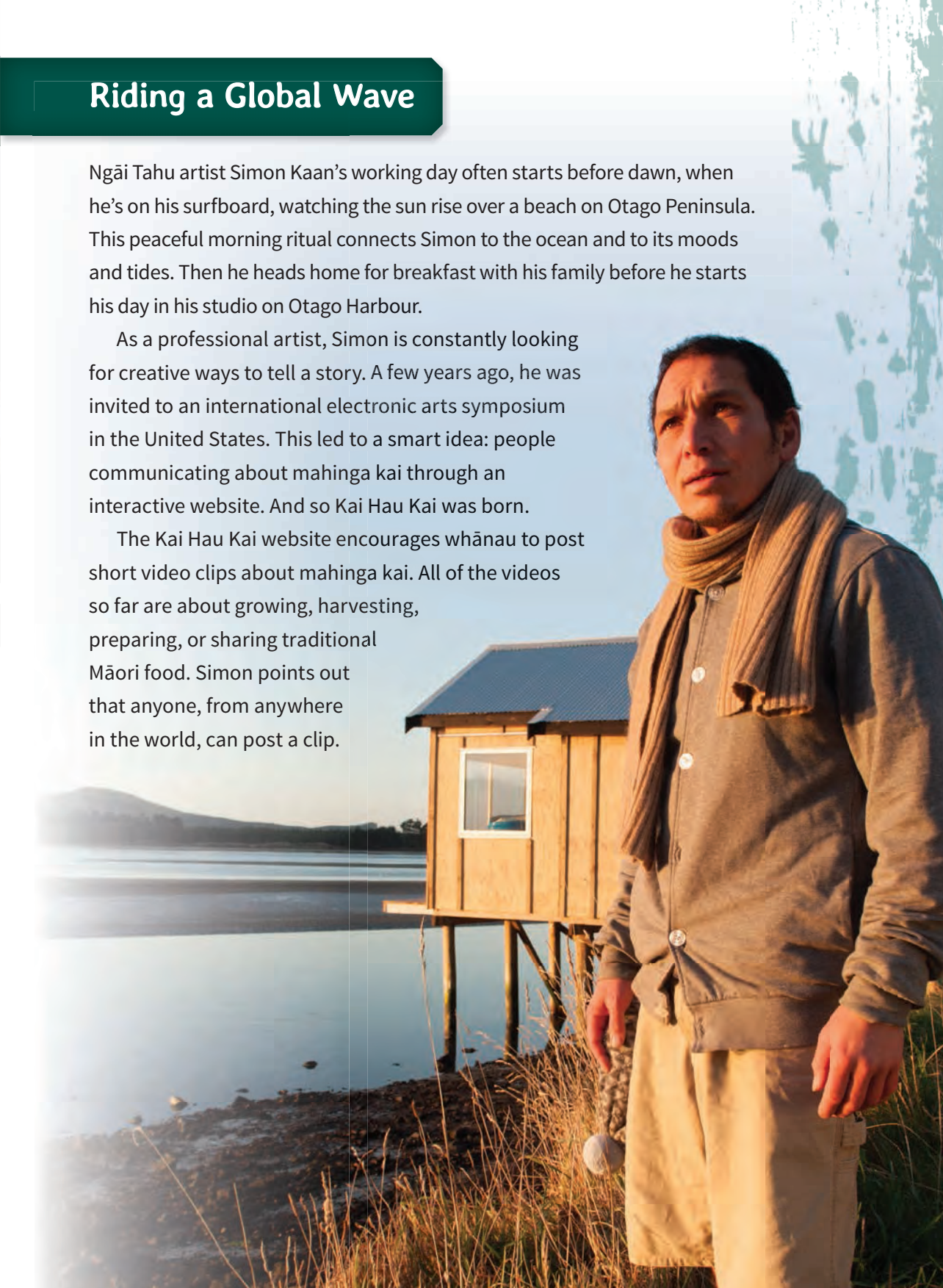
Now, Karl travels all over Te Waipounamu, sharing his kai Māori skills. He wants to make sure the tikanga survives. “Until my last breath, my job is to pass this mātauranga on. I don’t own any of it … I’m purely a kaitiaki for something our people have been doing for thousands of years. My role is to look after it, to protect it, and to pass it on.”

Riding a Global Wave

Ngāi Tahu artist Simon Kaan's working day often starts before dawn, when he's on his surfboard, watching the sun rise over a beach on Otago Peninsula. This peaceful morning ritual connects Simon to the ocean and to its moods and tides. Then he heads home for breakfast with his family before he starts his day in his studio on Otago Harbour.

As a professional artist, Simon is constantly looking for creative ways to tell a story. A few years ago, he was invited to an international electronic arts symposium in the United States. This led to a smart idea: people communicating about mahinga kai through an interactive website. And so Kai Hau Kai was born.

The Kai Hau Kai website encourages whānau to post short video clips about mahinga kai. All of the videos so far are about growing, harvesting, preparing, or sharing traditional Māori food. Simon points out that anyone, from anywhere in the world, can post a clip.



One special video is from Bluff kaumātua Tiny Metzger. In the 1970s, he recorded the methods his whānau use to preserve tītī in kelp bags. Known as pōhā tītī, it's something Tiny's whānau has done for centuries. Now, Tiny's videos have an international audience. "It's very exciting to see people using online technology to pass on their knowledge – but especially their ideas and memories," Simon says.

Simon's also excited about the website's international potential. He sees it as "a kind of cultural exchange in cyberspace between indigenous people of the world". Simon enjoys cross-cultural exchanges and has contacts all over the globe. In 2004, he spent three months in Beijing, working with other artists. It was a challenging but enriching experience that pushed him outside his comfort zone. But, as Simon says, "We learn about our own culture through the eyes of others."

Simon's love of the ocean dates back to his childhood, playing on a beach near Aramoana with his family. He never went home without a feed of tuaki, his first real experience of mahinga kai. He also remembers taking tītī sandwiches to school.

Visit Simon's website to find out more: www.kaihaukai.co.nz

Now with three young tamariki of his own, Simon is passing on his family's mahinga kai traditions. "Having primary-aged kids is a huge motivation for me. I want them to retain their Ngāi Tahu identity," he says. "I want them to see mahinga kai as something normal … and it gets them out in the environment and connects them with the ocean."

But the Internet can be a big distraction from the ocean. Simon sees how children are drawn to it. "This makes the Internet a powerful medium to exchange ideas." He says Kai Hau Kai is designed to stir memories more than to explain traditional practices. He hopes the website will encourage kids to ask their grandparents about the mahinga kai they collected when they were children. "I see conversations like that as a trigger for children to go out and learn new skills themselves," says Simon.

The Kai Hau Kai project is evolving all the time. Who knows where it will go from here? "It's still early days," Simon says, "and I'm not a mahinga kai expert. I'm an artist, and this is my way of contributing from an artist's point of view. Someone who has a bigger vision might pick it up – and that would be great." Whatever happens, Simon hopes that the website will be around for a long time.

Anthony really liked his new teacher, Ms Hill, and Ms Hill really liked skiing, which is why she'd planned a ski trip for the whole class. Anthony imagined touching snow for the first time. It was going to be great.

Ms Hill explained that the ski trip wouldn't be cheap. The class would need to fundraise, and the students would need to earn additional money themselves. And it wasn't just the money for Ms Hill that Anthony had to think about. He would need a warmer jacket and waterproof trousers. Maybe some new gloves.

It was no use asking Mum for money. Anyway, she'd warned him off before he got the chance. "They've cut my hours at the cafe," she said. "You'll have to earn the extra money yourself. But you'll be OK. You're good at lots of things."

So Anthony wrote a list of all the things he was good at: throwing tennis balls long distances, naming dinosaur species, playing the guitar that Mum's old boyfriend had left behind. But Anthony couldn't see how these skills could earn him cash – not without a very good idea.

He thought some more, this time about things that might actually earn some money. Walking dogs and mowing lawns – that's what other kids did. So that's what he'd do.

Anthony decided it would be much more fun earning the money with a friend.

"But it's still summer," Jevan said, appalled.

"That's the best time to walk dogs and mow lawns," said Anthony.

"But what about going to the beach and riding our bikes?" Jevan had just been given a new one.

"I really want to go on this ski trip," Anthony said.

Jevan frowned and looked away. "Then you go for it. I can always do gardening for my grandmother if I get desperate. Besides, last year when I didn't earn enough for our class trip, Dad just paid for it anyway."

Anthony didn't have a dad to just pay for it anyway. He'd have to sort it himself. First, he needed to let people know that he was available for work. He designed a notice and took it to Mr Lee's dairy. Anthony was always polite to Mr Lee, so Mr Lee was happy to stick the notice in his window.

Anthony's first customer, Mrs Whyte, lived by herself and needed all the plums picked off the ground in her orchard.

"How much do you charge?" she asked as Anthony took buckets from her shed.

Anthony thought about it. He could probably get away with asking for ten dollars, but she was his first customer. Besides, she'd already said he could take a big bag of plums home. "Five dollars will be fine," Anthony said.

Mrs Whyte loved the thorough job Anthony did with the plums, so she got him to mow her lawns as well. He'd made his first ten dollars! Then she told Mrs Reihana, who needed her shed cleaned out, that Anthony was a great worker. And Mrs Reihana was so impressed she told her neighbour, who needed some weeding done. Other people called – after reading the notice in Mr Lee's dairy.

A few weeks later, Anthony checked his chart. He'd already made enough money for February. He could go to the beach with Jevan and still reach his monthly target. But Anthony knew that lawns grew faster in autumn than in winter. "Make hay while the sun shines," his mother warned him.

So Anthony kept mowing lawns and picking fruit and weeding gardens. He had so many people wanting him to work that he was able to charge five dollars an hour. As long as he did a good job, they were happy. And he even had enough money to pay for his notice to be photocopied so he

could deliver it to letterboxes around the neighbourhood.

In the third week of the second term, Ms Hill said it was almost time to pay for the ski trip. Anthony proudly handed his money over early. He expected Jevan to have money from his dad, but his friend looked moody – and worried.

"I haven't got the money yet, Ms Hill," Jevan reported glumly. "I should have it soon."

"How come you don't have the money?" Anthony asked later. "Your parents can afford it."

Jevan sighed. "I know, but Dad said I have to earn it myself."

"Then work for your grandmother like last time."

"Already tried that," said Jevan. "She said I was a lazy worker because I knew she'd pay me no matter what. So she found someone else to do it."

Anthony didn't say that Jevan's grandmother had paid five dollars an hour *and* given him ginger crunch to take home.

"I was thinking," said Jevan, "do you need any help with all your lawns and stuff?" It was the first time Jevan had shown any interest in Anthony's business.

Anthony thought about the very big lawn he had to mow for Mrs Lockett. She'd agreed to pay him fifteen dollars. And this time, it would be extra-hard because she'd been away and the grass was long.

"Well, there's a lady in my street with a lawn that needs mowing," Anthony said. "Let's see. I could pay you five bucks."

Jevan was relieved. "Sure. Whatever you say, Ants."

"But you have to do a good job – and I'll need to come and check it when you're finished."

"No problem," said Jevan. "Thanks heaps, Ants. You're awesome."

Anthony smiled. He said nothing.

ILLUSTRATIONS BY KAT CHADWICK

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