

UNDERGROUND SOLDIERS

BY MARK DERBY

When some schoolboys stumbled into a tunnel underneath the French city of Arras around twenty years ago, they made an amazing discovery. The tunnel led 30 metres underground into enormous caverns. Names, signs, and graffiti were painted on the bare rock walls. One message read "Kia ora NZ", and it had a big fern-leaf drawn on each side.

The boys had accidentally rediscovered a huge, secret hiding place for soldiers, carved out almost a hundred years ago during the First World War. Thousands of men once rested in these stone caverns. The soldiers came from Britain and Canada to fight the Germans – but the underground network that sheltered them was mostly built by miners from New Zealand. They were members of the New Zealand Tunnelling Company, a special unit of the New Zealand army formed during the First World War.



THE TUNNELLERS FROM NEW ZEALAND

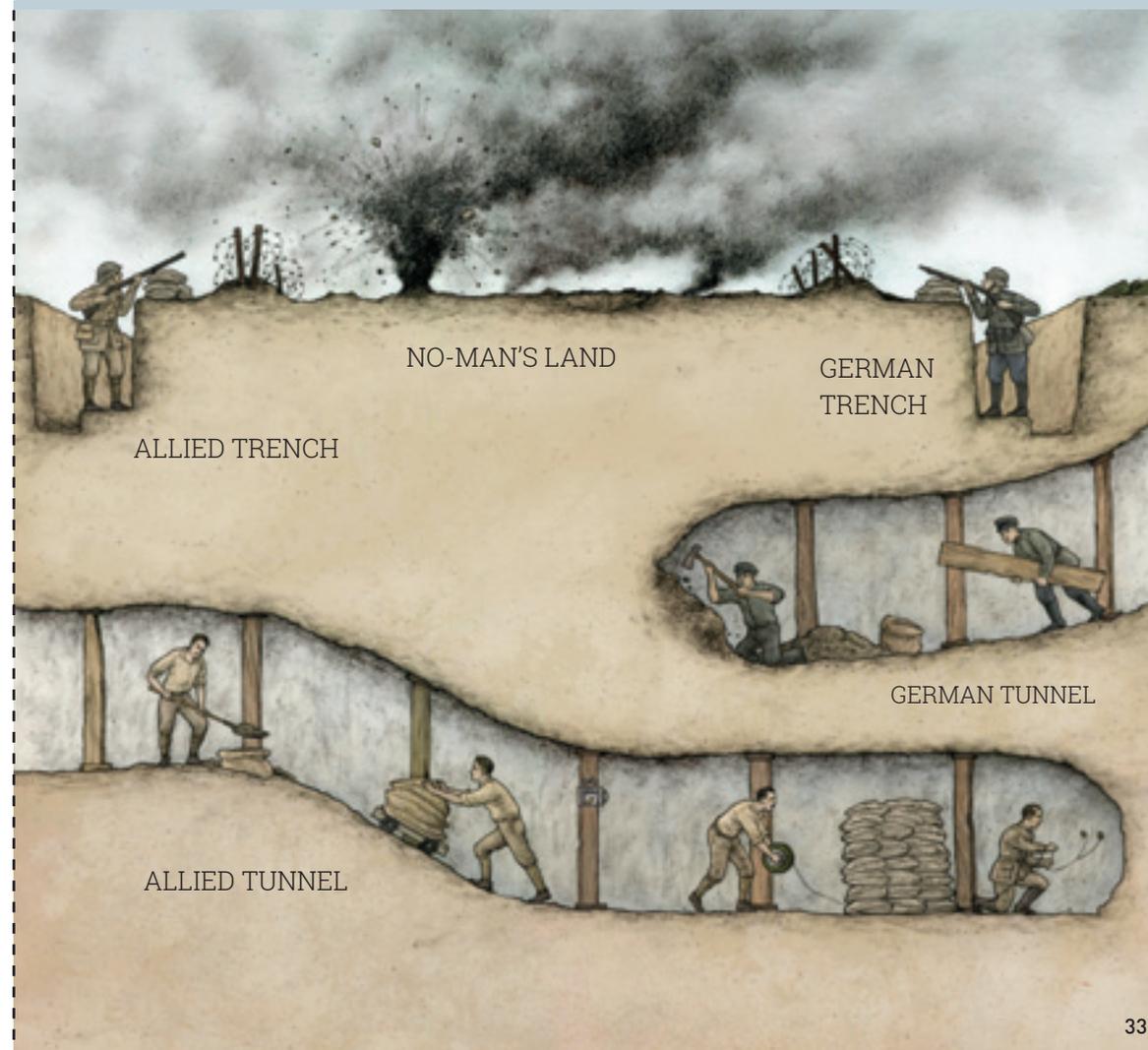
The men who volunteered for the New Zealand Tunnelling Company were mostly miners from towns like Waihi or Reefton – or they were bushmen and labourers. They were rough, tough men, used to working in dangerous situations and looking out for their mates. Many belonged to trade unions and didn't take kindly to authority, but they soon learned to march, salute, and take orders. In December 1915, after basic military training in Auckland, more than four hundred men left for the **Western Front**. Several smaller groups of tunnellers followed later as reinforcements.

The Tunnelling Company arrived in the northern French town of Arras in the freezing winter of March 1916. Arras had once been beautiful – but by 1916, it was in ruins. Most of the civilians had been evacuated, and British troops occupied the shattered buildings. Every day, German **artillery** fired shells into the town. Other tunnelling companies were already based near Arras, and each one was in charge of a certain area. The New Zealanders were sent to replace French tunnellers who were digging beneath a network of trenches named the Labyrinth. It was here – just north of Arras – that the New Zealanders joined the war underground.

Tunnel Warfare

The First World War began in August 1914, when the German army invaded Belgium and then swept into France. The **Allies** stopped the German advance, and both sides dug a long line of trenches that faced one another. This was the Western Front. The space between the two sets of trenches was called no-man's land. The Allies tried to capture the

German trenches by sending thousands of soldiers across no-man's land on foot. Huge numbers died after being shot at or shelled. To limit the risk to their men, both sides began to dig tunnels that led under no-man's land. There they used explosives in the hope of killing soldiers in the enemy trenches overhead. This was known as tunnel warfare – the war underground.



THE WAR UNDERGROUND

Around Arras, the ground was mostly sandstone, which was soft and easy to dig through. Using picks and shovels, the miners dug their tunnels 30 metres below the surface. Soldiers had to haul the loose rock up to the surface in sandbags and scatter it carefully, well away from the tunnel entrance. Otherwise an enemy plane might spot the distinctive white rock on the brown soil, and the enemy artillery would aim its shells straight at the tunnel entrance.

Tunnelling on the Western Front was dangerous and frightening. Often it was a race against time. Men on both sides worked quickly to dig their tunnels and explode their bombs before the enemy beat them to it. This was called counter mining. Once a tunnel was directly beneath the enemy, tunnellers packed it with tonnes of explosive. Then they stacked sandbags behind this explosive to concentrate the blast, then detonated it from a safe distance. Sometimes enemy soldiers were blown into the air, and their trenches were turned into deep craters. Enemy miners working underground could also be killed in these explosions.

Carbon monoxide was another killer that could be released underground at any time. Because this poisonous gas is invisible and has no smell, miners on both sides carried canaries and white mice in cages. These creatures were quickly affected by carbon monoxide and acted as an early warning sign of the gas.

AN UNDERGROUND CITY

One day, some off-duty New Zealand officers found ancient quarries beneath Arras where sandstone had been mined to build the town. Some of these quarries were huge, cathedral-sized caverns. The British quickly realised that these caverns could be connected and extended towards the enemy trenches to move an entire army safely underground. Thousands of troops could be sheltered and hidden before launching a surprise attack on the Germans.

Over the next five months, the New Zealand tunnellers worked in secret alongside the British. For a short time, the company was reinforced with forty-three soldiers from the Pioneer Battalion. The men worked around the clock in eight-hour shifts to create a complex system of caverns and tunnels able to hold 25 000 troops. The tunnels had to be wide enough for soldiers to march through while wounded men were carried on stretchers in the other direction.

The secret labyrinth also needed facilities, such as toilets, cookhouses, chapels, and a large hospital. Running water and electric lighting were installed, and a horse-drawn railway moved supplies. To help with navigation, the tunnellers named caves after their home towns. Signs such as Auckland, Wellington, Nelson, Christchurch, and Dunedin were painted on the walls. Some soldiers also scratched messages and drawings in the rock.

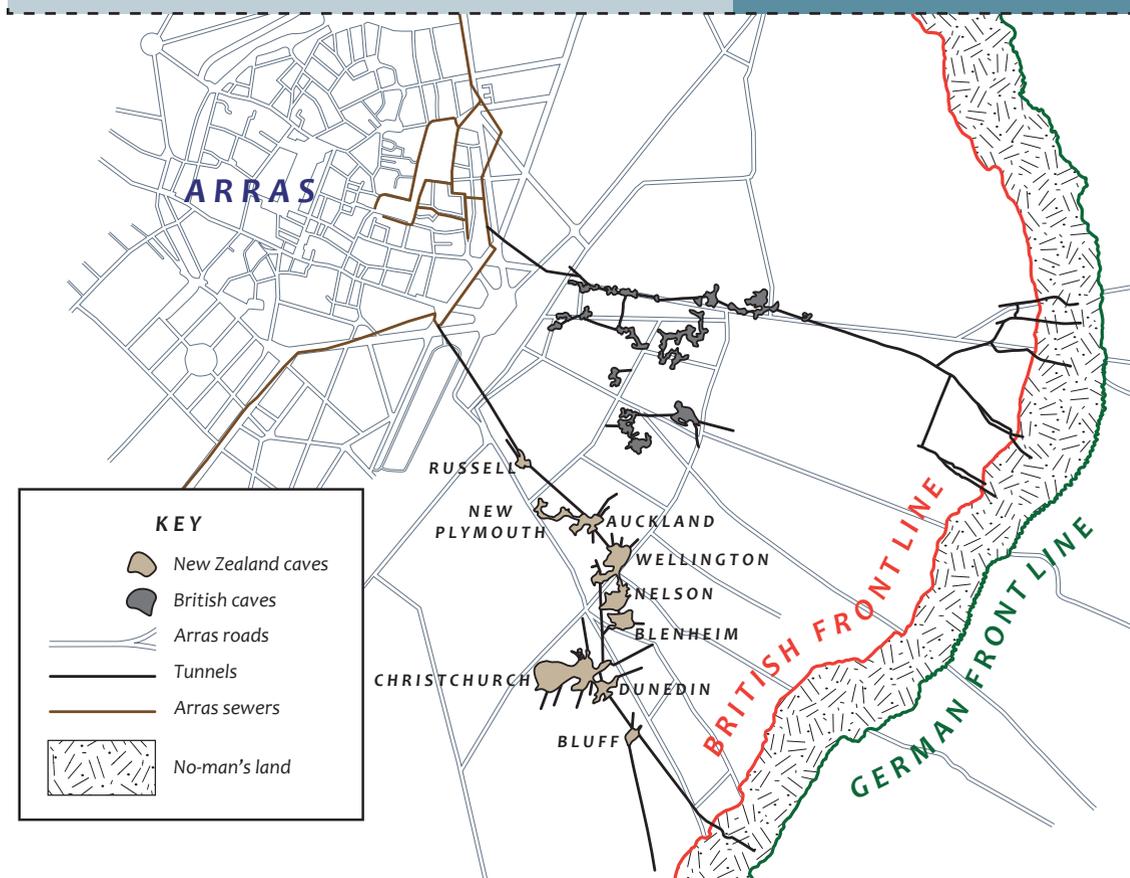
Geophones: Keeping Track

The tunnellers kept constant track of the enemy. They did this through a piece of equipment called a geophone – a pair of disc-shaped microphones connected to earpieces. By moving one disc around until the sound was equally loud in both ears, a miner could tell where a noise was coming from and how far away it was.

Geophones were helpful, but they also caused stress. Using one meant sitting in a dark tunnel for hours, straining to hear the faint tap of the enemy's picks – and being able to distinguish this sound from many others. Through the geophone, it was sometimes possible for a miner to hear the enemy packing their explosives. When that noise stopped, it meant the inevitable explosion could happen at any time.



Many soldiers' lives depended on the skilful use of a geophone.



THE BATTLE OF ARRAS

By early April 1917, the underground city was ready. So too were the three massive piles of explosives that would launch the attack, as well as the exit tunnels that led right up to the German line. The British and Canadian troops moved in – and at 5.30 a.m. on Easter Monday, an enormous explosion ripped through the air. Then, in freezing wind and sleet, the troops poured out of the exit tunnels.

As planned, the Germans were caught by surprise. That day, the Allies advanced 11 kilometres into German-held territory. Given the stalemate, this was considered a victory. However, the German troops soon fought back. Lines of stretcher-bearers carried wounded British and Canadian men back down the exit tunnels into the underground hospital. There, doctors and nurses struggled to save their lives. Nearly forty thousand Allied troops were killed in the Battle of Arras. But without the underground cave system, many more might have died.

▼ *The Battle of Arras*



WORK ABOVE GROUND

After the Battle of Arras, the tasks of the Tunnelling Company changed. The men worked mainly above ground, helping to hold territory captured by the Allies. To do this, they built deep dugouts and machine-gun posts, and they repaired roads and bridges. Most of the tunnellers had no training for this kind of work, but they quickly learned on the job. The construction work was still dangerous, and some of the men were killed by shells, machine-gun fire, and poisonous gas.

By August 1918, the German troops were retreating towards their own country. As they withdrew, they left behind hidden "boobytrap" bombs. The tunnellers had to find these and carefully blow them up before the area was safe for other soldiers to enter.

The war ended on 11 November 1918, but the tunnellers carried on. Their skills were desperately needed to repair ruined towns in France and Belgium. The Tunnelling Company finally arrived back in Auckland in April 1919 – and for a time, their work was mostly forgotten. Today, Arras has a special visitors centre, with a lift that goes down to an underground museum in the "Wellington" cave. The town also has a memorial to the more than fifty New Zealand tunnellers who died during the war.



▲ *The Havrincourt Bridge, built by the New Zealand tunnellers*



◀ *The New Zealand tunnellers working in France*

Underground Soldiers

by Mark Derby

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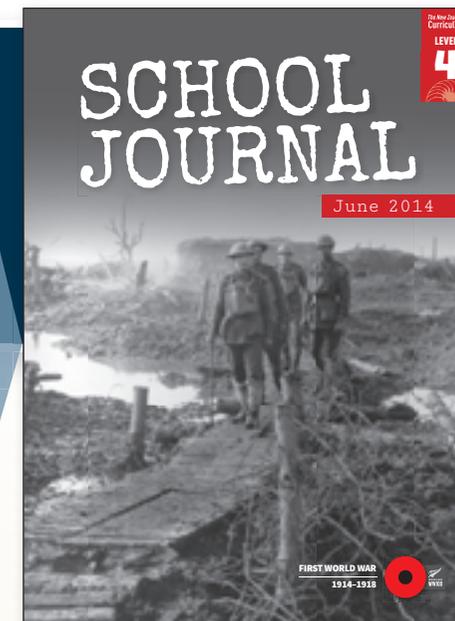
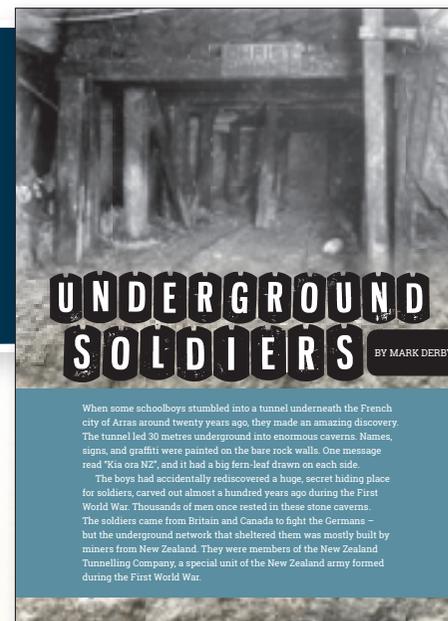
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