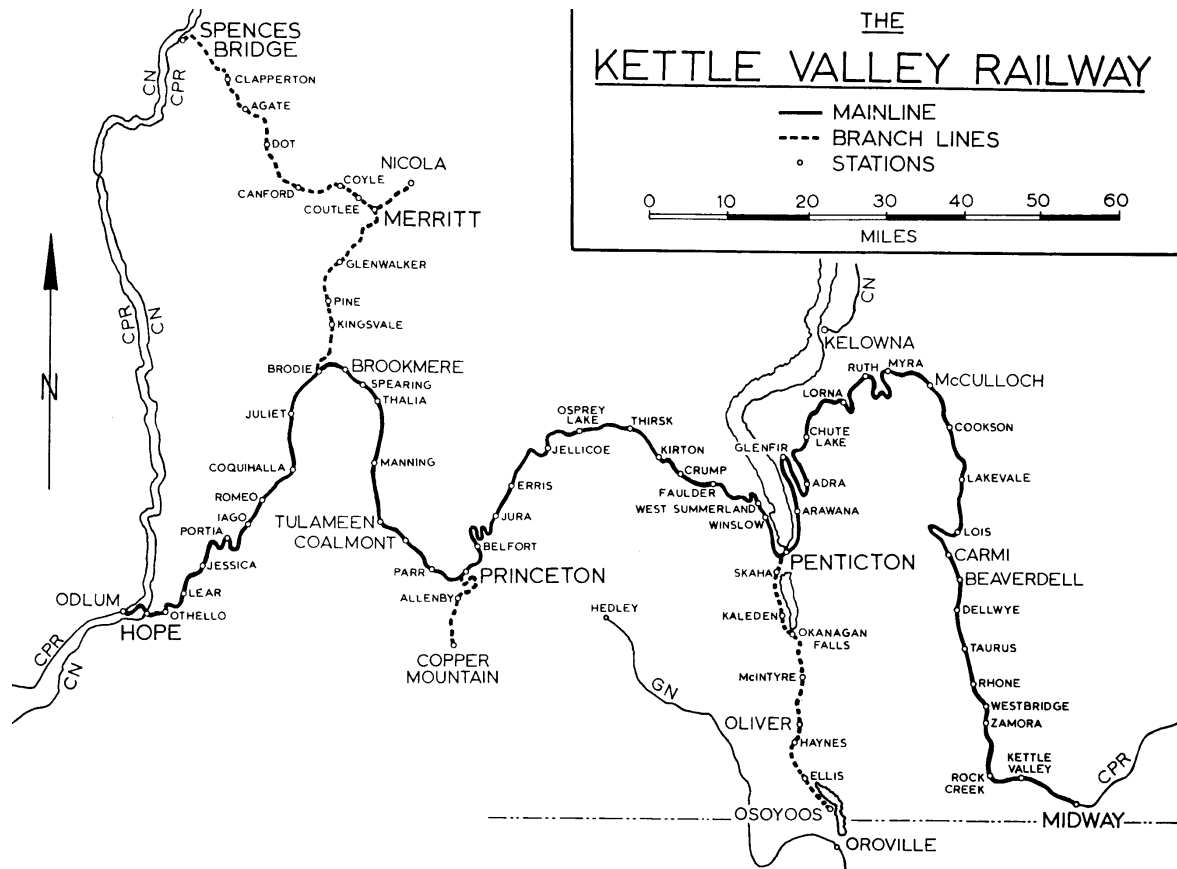


Photo courtesy of Dick Parkinson Collection, Kelowna Museum

Kettle Valley Railway

Okanagan History Vignette



Map courtesy of Barrie Sanford, *McCulloch's Wonder: The Story of the Kettle Valley Railway*.
Publisher, Whitecap Books.

CPR = Canadian Pacific Railway
CN = Canadian National Railway
GN = Great Northern Railway

The Kettle Valley Railway

Oh, what an adventure it was to ride on the Kettle Valley Railway, or the KVR as it was called. Completed in 1916, it carried freight and passengers in comfort and safety for over 40 years. It took six years of backbreaking and sometimes dangerous work to build the 330-mile line (530 kilometres). Labourers tunnelled through high mountain passes, skirted around deep canyons, and crossed churning rivers. The rail line was always being repaired or being rescued from natural disasters like snowdrifts, avalanches, landslides, and forest fires. The KVR has been described as the most difficult and expensive of all railway projects in Canada. But for the passenger, riding the train provided spectacular scenery, classy surroundings, and relaxed travel.

A Ride on the Kettle Valley Railway

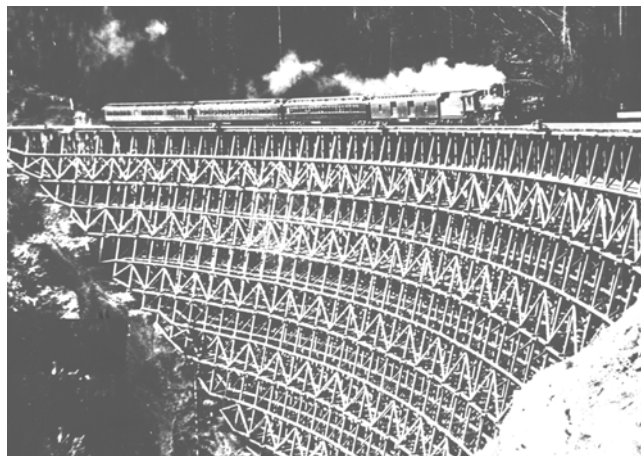
Imagine you are sitting in the dining car as the passenger train chugs and glides its way from Vancouver to Nelson. It is a hot summer day in 1927. You're glad to have the cold drink that the waiter places in front of you. As your fine dinner is served, you notice the sparkle of the silver platter. Suddenly, the train begins to swing around a long curve, and you glance through the window. The scenery slides past. You feel like you are watching a film. Far below, water foams in the canyon. In

the distance, trembling aspen trees cover the slopes. You have already passed golden farmland, sparkling lakes, and jutting mountains. Soon the train slows down and stops briefly at a station. The sign reads “Romeo.” You wonder if “Juliet” station can be far behind. While the train has stopped, two young men have quickly heaved themselves to the top of the train. They are fruit pickers going to the Okanagan, and they want a free ride.

As the train picks up speed, you see a dignified gentleman slowly walking down the aisle. He seems to be looking around carefully. “It’s Mr. McCulloch,” the waiter whispers. “He loves to ride this train. He wants to make sure everything is A-OK.” You nod to the man as he passes. This is Andrew McCulloch, the engineer responsible for the huge task of building the KVR line over three mountain ranges. Now, as superintendent, he’s on the job keeping the lines in good running order. The Kettle Valley Railway has become known as McCulloch’s Wonder. It is no surprise he looks so proud.

Tossing down your linen napkin after dinner, you stroll back to the day coach. Out of the window, you watch the evening sky turn from blue to purple to black. You are lulled by the steady rhythm of the train’s motion. You hear the creaking and groaning of the wooden trestles as the train moves over the bridges. Smoke billows from the locomotive as

it hauls the cars up a high mountain grade. The brakes squeal as they grip the rails when the train rushes down into a valley. Tunnels block the fading light. The whistle sounds at each station or stop. You will pass by over fifty on this journey. The train will be in Penticton in the morning. Then you will be able to see the spectacular Myra Canyon near Kelowna in daylight. Sixteen trestles hug the mountain walls. Now the porter has made up a comfortable bed for you. Satisfied, you nod off, wondering how this gem of a railway came to be.



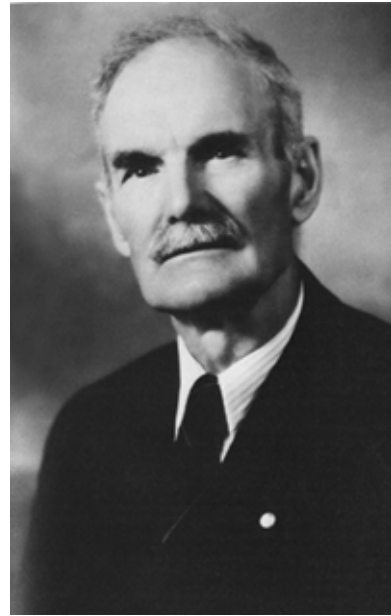
Hydraulic Bridge
Photo courtesy of Kelowna Museum

The Beginning of the Kettle Valley Railway

The idea for the Kettle Valley Railway was born at the turn of the 20th century. There were rich silver and copper mines in the Kootenays. But there was no Canadian railway to carry the ore to a port on the West Coast where it could be shipped to markets around the world. Instead, ambitious American railway owners quickly built spur lines up from Washington. They took advantage of the profits to be made. Sir Thomas Shaughnessy, the president of the Canadian Pacific Railway (often called the CPR), fought for an all-Canadian rail line on all-Canadian territory. In 1910, Shaughnessy convinced British Columbia Premier Richard McBride to support his plan to build a rail line in the southern interior that would link up with existing CPR train track in the Kootenays and Merritt. Later, an extension would continue the line through the Coquihalla Canyon to Hope. The government agreed to give \$5,000 per mile (\$3,100 per kilometre) to build the line but said that the CPR must finish the work in four years. Shaughnessy also had one final command. The KVR must be first class in every way. That was a tall order. But it would be filled, thanks to one man: Andrew McCulloch.

Andrew McCulloch was hired as the chief engineer of the Kettle

Valley Railway. He was born to a poor farming family in Ontario in 1864. When he was 30, he began working with the CPR. He started by repairing lines. He then took on other jobs to gain experience. He became famous for his work on the Spiral Tunnels at Kicking Horse Pass on the BC-Alberta border near Lake Louise. He was 46 when he moved with his wife and children to Penticton to work on the KVR. A great fan of Shakespeare,



Andrew McCulloch
Photo courtesy of Kelowna Museum

McCulloch named the train stations in the Coquihalla section after heroes and heroines in Shakespeare's plays. Trains would later stop at Juliet, Romeo, Iago, Portia, Jessica, Lear, and Othello. After construction was completed, McCulloch agreed to become superintendent of the KVR operations. Keeping the line in top shape would be as hard work as building it. McCulloch retired in 1933, aged 69, after 23 years with the KVR. He lived until he was 81. He said that the Kettle Valley Railway was his favourite piece of work.

Building the Kettle Valley Railway

Construction started in 1910. To meet the deadline, McCulloch started building at both ends at once, beginning in Merritt and Midway. At Midway, the KVR line would link with CPR track and continue east to the Kootenays. At Merritt, the line would meet up with the CPR line from Spences Bridge. The first section of the KVR to be completed connected Brookmere with Merritt. Railway building was booming in Canada. McCulloch sometimes had trouble finding skilled labourers. At times there were as few as 200 men working on the line, and progress was slow. But between 1911-1915, over 1,000 men worked on the 60-mile section from Penticton to Hydraulic Summit.

At the peak of construction, he had 5,000 men working at once. In the Okanagan Valley, immigrants from

Scandinavia and central Europe made up the labour force. McCulloch travelled mostly by horseback to check on the quality of the work.



Dick Parkinson, top left, and friends
Photo courtesy of Kelowna Museum
Dick Parkinson Collection



Labourers and a horse-drawn cart at Adra Tunnel near Naramata
Photo courtesy of Kelowna Museum

It has been said that muscle power and black powder built the KVR. Preparing the roadbed was hard and dangerous work. Hard-rock miners blasted out the rock cuts. The rubble was cleared by labourers using picks and shovels. Horse-drawn scrapers and little cars pulled or pushed by the workers moved the earth and rock away. Drillers earned \$2.75 a day, and the labourers earned between \$2.00 and \$2.50 a day. Black powder was the explosive used by early railway builders. Up to five boxcar loads of explosives were used in a single blast. There were many accidents with explosives, usually because of carelessness. Dynamite became available to the builders in 1913. The main element in dynamite was nitroglycerine. It sometimes froze in winter. When in a

hurry, men used to heat it up in a frying pan instead of letting it thaw in hot water. The results could be fatal!

After the roadbed was prepared, the rail gang with the track-laying machine arrived. The big track layer was followed by six railway cars packed with rails and ties. Conveyor belts on the sides of the track layer brought the rails and ties to the front. Behind the rail and tie cars were cars carrying spikes and bolts. When the rail was put in place on the ties, five men on each side would pound in huge spikes to hold the rails in place. Crews would shovel gravel into the roadbed to keep the tracks straight and well-drained. The track layer would then move forward on the new rails. A rail gang could have 65 to 85 men in it. On a good day, they could lay over two miles (three kilometres) of track.

McCulloch had to perform feats of great engineering skill on several sections of the line. Chute Lake Pass, north of Naramata, had a difficult 4.5 percent grade. McCulloch created a triple loop where the line doubled back on itself twice. The spectacular chasm at Myra Canyon was 3.75 miles (6 km) long and 714 yards (650 m) deep. It also split into two forks at the south end. To get the railway across the canyon, McCulloch built 16 wooden trestles, 2 trestle bridges over the forks, and 2 tunnels. More than 25 cars of bridge bolts were required.



Track-laying machine and rail gang work east of Princeton, 1915.
Notice the conveyor belts on the front of the track layer. It took
many men to put the ties and rails in place.
Photo courtesy of Kelowna Museum

He later wrote, "I never saw a railway built on any such hillside as this."

The Coquihalla section with its raging river and granite-walled canyon set records for its construction. The 39-mile (63 km) section from Coquihalla Summit to the CPR junction near Hope needed 43 bridges, 13 tunnels, and 16 snowsheds. Construction crews used 22 million board feet of timber and 4500 tons of steel. The Coquihalla Valley had the most expensive mile of railway track in the world. The average cost

per mile for Canadian railways at that time was \$27,000. One mile in the upper Coquihalla canyon cost more than \$300,000!



The first passenger train pulls into the station at Penticton, May 1915,

when the line between Merritt and Midway was officially opened.

More than 1,500 people greeted the first train.

Photo courtesy of Kelowna Museum

More Than Forty Years of Service

The Kettle Valley Railway line, including the Coquihalla section, was completed in 1916. It operated for more than 40 years, linking communities in southern British Columbia. It took a great deal of effort to keep the trains running due to the harsh landscape and climate. The

KVR was considered a dangerous railway. There were daily foot patrols, and brakes were tested before every hill. McCulloch himself checked every bridge and tunnel each year. A plow train or track car often went through the Coquihalla Pass looking for washouts or snowslides. Deep snow fell in the Coquihalla section with a record of 211 feet (63 m) in one winter. In 1917, a snow and rock slide hit the end of a plow train, and the caboose fell into the canyon. One crewman was killed. Others were hurt, including McCulloch. He then walked over 25 miles (40 km) to Hope on an injured leg. In the hot summer of 1931, a forest fire raged toward Myra Canyon. Water trains were rushed in to dampen the timbers of the wooden trestles and bridges. During that same summer, a plague of grasshoppers settled in the Okanagan. They stripped the orchards clean. They landed on the tracks and were crushed by the trains. The tracks became so greased that the trains could barely move.

The worst accident happened on Labour Day in 1926. Thirty freight cars carrying lead and zinc ingots and coal began the long downhill journey toward Hope. When the train started to pick up speed, the engine driver pulled the brake lever. But after a hiss, there was silence. There was no air left in the brakes. The crew tried to slow the train using hand brakes. But the slope was steep, and the train was already moving too fast. The runaway train thundered through Jessica

station with flames leaping from the brake shoes. The caboose and three coal cars broke off. The rest of the train flew into the canyon. There was a terrible crash. The locomotive and 25 cars burned. Four crewmen were killed. Sadly, some fruit pickers who had jumped on top of the train for a free ride were killed as well. Despite the accidents and natural disasters, the KVR had the best safety record on the continent.



Passenger train crosses the high wooden trestle over Canyon Creek in the Carmi Subdivision, 1917.
Photo courtesy of Kelowna Museum

During its heyday, a KVR passenger train included a baggage car, a first class coach, a diner, several day coaches, and a sleeper. It left Vancouver in the early evening, passed Penticton in the morning, and arrived in Nelson that evening. Leaving Nelson early in the day, it arrived back in Vancouver the following morning. Old timers who travelled as passengers remember their experiences fondly. They recall dining in style with meals served on silver platters. There were even finger bowls if anyone wanted them. Linen napkins were folded into fancy shapes. Waiters balanced trays as the trains swayed around corners and through tunnels. Porters prepared comfortable berths for the overnight trip. Travellers enjoyed relaxing train travel.

The End of the Kettle Valley Railway

In the boom years, the “Coast-to-Kootenay” railway hauled fruit, ore, coal, cattle, lumber, and passengers. Although the line made a profit carrying freight and passengers, the CPR never made up the \$20 million the line cost to build. And then the fortunes of the Kettle Valley Railway began a slow decline in the 1930s. The Great Depression of the 1930s saw a decrease in the number of loads of freight to be carried. Moreover, in 1931 the fruit crop was a disaster. The worst year for snow problems was 1935. There were forest fires in 1938 that burned 3 major trestles near Romeo. World War II increased the demand for ore, coal,

and lumber, and this kept KVR freight cars rolling. But the final blow came in 1949. The Hope-Princeton Highway was built. Then travellers could drive their own cars. Freight could be carried in trucks. In 1959, a series of snowstorms did so much damage, the KVR lines were never opened for more than a few days at a time. In January 1961, the line in the Coquihalla Pass section closed for the winter, and it was never reopened. The CPR said maintenance was too costly. The track in the Coquihalla section was ripped up in 1962. Then the CPR's decision to close the line could not be changed. Trains were rerouted from Merritt to Spences Bridge. The rest of the line was closed bit by bit. Rail lines in southern BC could not make enough money. Passenger traffic stopped in 1964 after a last run from Spences Bridge to Penticton. Supporters of the KVR were heartbroken. An old timer said, "They've killed the Kettle Valley Line." But the courageous KVR was not dead.

The Kettle Valley Railway Today

Almost one hundred years after the Kettle Valley Railway began, its rebirth is underway. The tracks are gone except in the Penticton to Brookmere section. But the roadbed still loops across southern British Columbia. KVR buffs want to save the line as a 500 kilometre hiking and biking trail. As well as honouring the men who constructed the



The English as a Second Language
Tourism class from Okanagan
University College on a field trip to the
Kettle Valley Railway line.

Photo courtesy of Kate Gilchrist

railroad and kept it running, the KVR trail is now a popular tourist attraction. Parts of the trestles and bridges are being repaired for recreational use. However, not all of the land is currently available for exploring. Some areas are in the hands of private landowners. During the summer, a steam train runs on a 10-kilometre section of the original

line in the Summerland area. As one KVR buff says, the Trout Creek

Bridge near Summerland is

spectacular. “Great view if you don’t look down between the ties.” The adventure of the Kettle Valley Railway lives on!

Perhaps someday when you’re hiking or biking a part of the line, you’ll feel a bit of the old KVR magic. You’ll be travelling over trestles and through tunnels nearly a century old. You’ll experience the same scenic views that thrilled past generations. The aspen leaves will tremble in the wind as you pass along the abandoned roadbed. What’s that you can hear in the distance? Could it be a train whistle?

Glossary

chasm	deep crack in the earth's surface
engineer	someone who plans or builds bridges, roads, and buildings
feat	something done that shows great skill
grade	slope of railway track
Iago	Shakespeare character: pronounced ee-AW-go
ingots	metal that is formed into a bar or brick shape
junction	place where railway lines or roads come together or cross
locomotive	engine used to pull railway cars
maintenance	the work of keeping something like roads or railway lines in good condition
nitroglycerine	thick, explosive oil used in making dynamite
plague	something that causes suffering, eg. a plague of mosquitoes
Portia	heroine in a Shakespeare play; pronounced POR-sha
roadbed	dirt foundation on which a railway is built
spur line	short track connected with main track of railway
superintendent	person who manages a business or organization, eg. superintendent of a school district
trestle	framework of timber or steel supporting a railway bridge