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CANADIAN RAIL

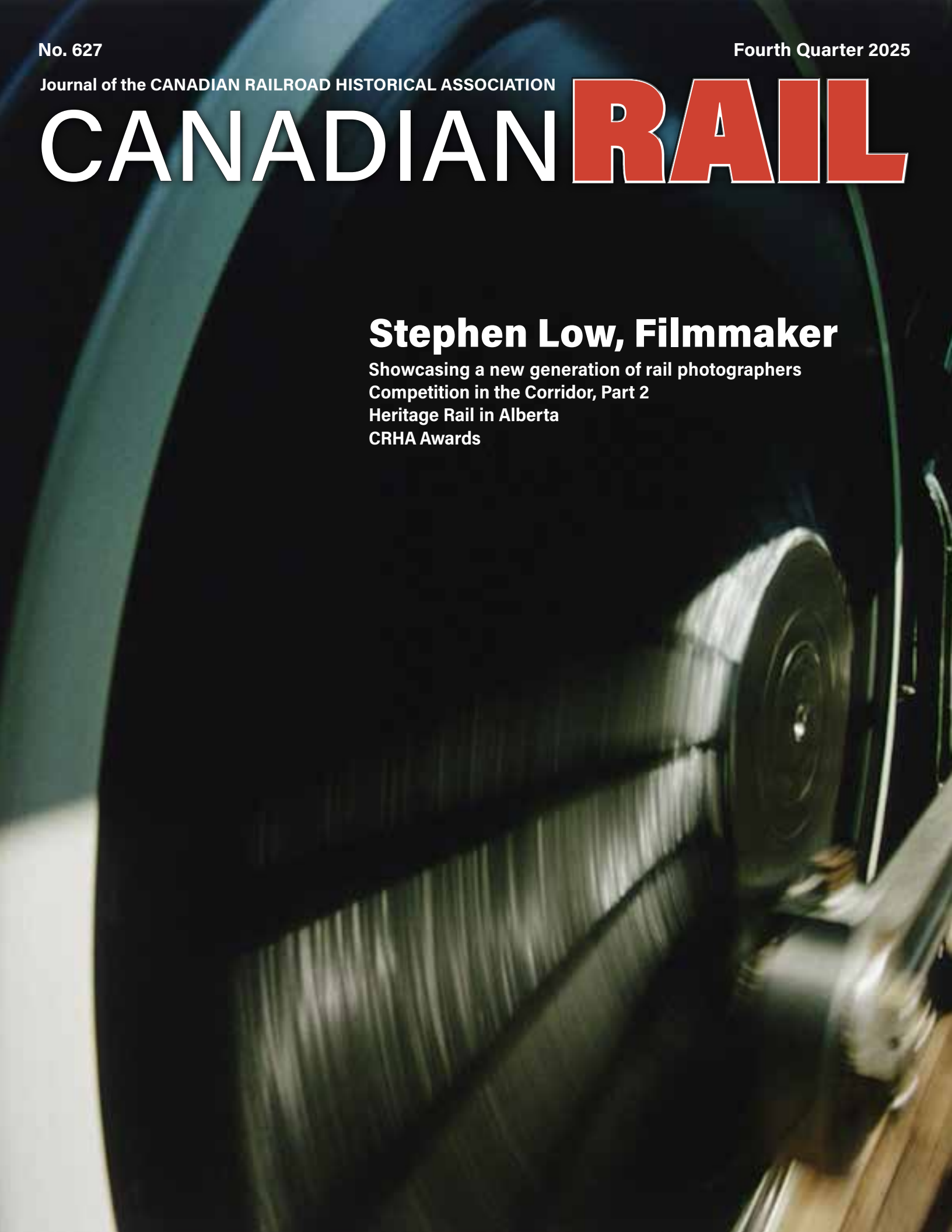
Stephen Low, Filmmaker

Showcasing a new generation of rail photographers

Competition in the Corridor, Part 2

Heritage Rail in Alberta

CRHA Awards



Through the lens

The railway imagery of an influential Canadian filmmaker

In the world of documentary filmmaking, few names evoke a stronger connection to the raw power and romance of machinery than Stephen Low. A master of the IMAX format,¹ Low has carved out a distinct legacy by bringing colossal machines — and especially trains — to life on the biggest screens imaginable. But for Low, the sound of a train's whistle and the rhythm of steel wheels over track are more than just cinematic motifs — they are a lifelong passion rooted in personal experience and historical insight.

Born in 1950 in Ottawa and raised in Montreal, Stephen Low grew up in a home steeped in the tradition of Cana-

dian storytelling. His father, Colin Low (1926-2016), was a pioneering animator and documentarian at the National Film Board of Canada (NFB).² A revered figure in Canadian cinema, Colin Low headed the NFB's animation unit in the 1950s and collaborated with artists like Norman McLaren (1914-1987) and Gerald Potterton (1931-2022). Famously, he was invited by director Stanley Kubrick (1928-1999) to contribute to the motion picture *2001: A Space Odyssey*, but declined due to his work on *In the Labyrinth*, a groundbreaking multi-screen NFB production for the Labyrinth pavilion at the Expo67 world's fair in Montreal.

In many ways, Stephen Low inherited not only his father's cinematic eye, but also his strong creative spirit. While Colin's world was one of animated images and national identity, Stephen's interests were more tactile. As a young man, he explored photography, painting, aviation, scuba diving, auto racing and, most notably, trains.

This fascination would shape the trajectory of his life. While studying political science at Lakehead University in Thunder Bay, Ont., Low worked summer jobs as a brakeman for Canadian Pacific. He worked on the main line, servicing freight trains as well as *The Canadian*, CP's iconic trans-continental passenger train.



of Stephen Low

By Marco and Robert Marrone

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It was during this time that Low witnessed the slow erosion of Canada's once-great rail network. "We should have stuck with trains," he reflects today. "Trains are much more efficient, especially with expanding population and environmental concerns." As he worked the rails, he saw firsthand the dismantling of lines and the closure of stations. Meanwhile, society's obsession with cars and long-haul trucking gained momentum — an oversight, Low believes, that has come at a steep cost.

Low recalls that the idea of global warming began gaining traction in the 1970s — the same time railways began tearing up branch lines and demolishing stations

across the country. In Alberta, "Once upon a time, trains easily serviced grain elevators," he notes. "With the disappearance of rail lines, we now have too many trucks doing an inefficient job, driving countless miles to reach elevators and leaving a larger carbon footprint."

"If you do the math," he adds, "trains are the more economical and environmentally friendly alternative. We got it all wrong."

Eventually, Low gravitated toward filmmaking — specifically in the IMAX format — because it provides audiences with a visceral experience. For him, the scale

BELOW LEFT A jib-mounted IMAX camera films Canadian Pacific 4-6-4 engine 2816 (Montreal Locomotive Works, December 1930) for the film *Rocky Mountain Express*.

BELOW MIDDLE (Left to right) Stephen Low, Name, Name and Name pose with 2816 and one of the IMAX cameras employed in the production of *Rocky Mountain Express*.

BELOW RIGHT Stephen Low lines up a shot with the camera firmly attached to 2816's running board.

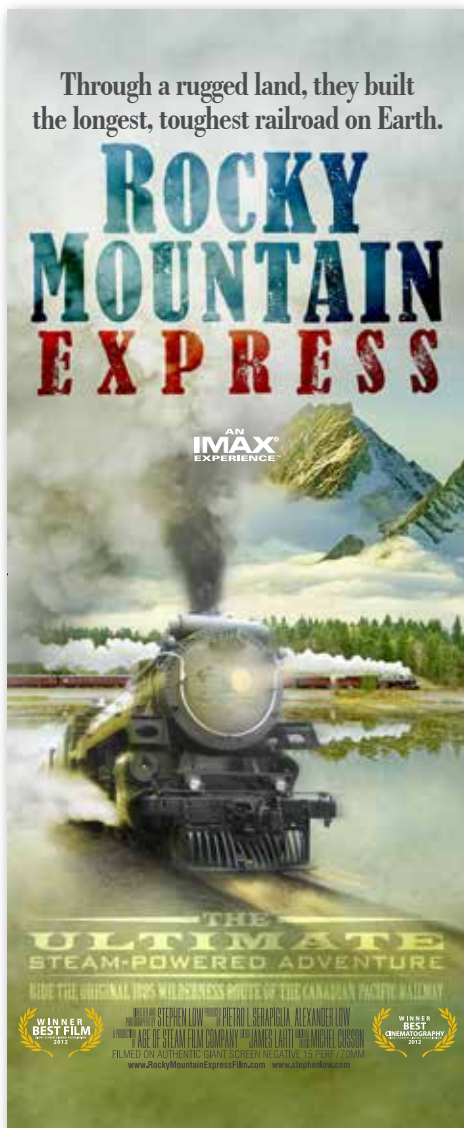




ABOVE A pilot-mounted camera captures 2816 emerging from a tunnel in British Columbia.

BELOW Poster promoting *Rocky Mountain Express*, and an aerial screen image of 2816 at work.

FACING PAGE Two more screen images of 2816 from Stephen Low's *Rocky Mountain Express*, crossing the Columbia River at Revelstoke, B.C., and running past hoodoos in the province's interior.



and intensity of IMAX weren't just artistic choices; they were essential tools for immersion and education. These films could serve as powerful teaching vehicles, combining spectacle with substance to inspire and inform. They allow us to experience something that otherwise, for some, might not be possible.

In 1985 he founded The Stephen Low Company, based in Dorval, Que. Specializing in large-format filmmaking, the company has produced a diverse body of work. A recurring theme across Low's films is the celebration of transportation marvels — ships, aircraft and trains — and the people who appreciate and rely on them. Low's cinematic style combines immersive visuals with a reverence for the subject matter. His IMAX documentaries allow viewers to feel the thunder of locomotives, the hiss of steam, and the grandeur of rail travel in a way that traditional motion-picture formats cannot convey.



The three Stephen Low Company films of particular interest to rail-oriented audiences are *Rocky Mountain Express* (2011), *The Trolley* (2018) and *Train Time* (2022).

Rocky Mountain Express

Produced in cooperation with Canadian Pacific, this breathtaking IMAX documentary showcases restored CP Class H1d 4-6-4 Hudson-type steam locomotive 2816 as it follows CP's mainline route from Vancouver to Calgary. Low had witnessed the newly refurbished locomotive soon after it was returned to service in August 2001.³ He was determined to capture its beauty and majestic power on film, and share the experience with audiences around the world.

Rocky Mountain Express immerses viewers in the landscapes of the Canadian Rockies, while telling the dramatic origin story of Canadian Pacific's transcontinental railway — an ambitious and often perilous engineering feat that bound the young nation together. Combining historical reenactments, archival materials, and awe-inspiring visuals, *Rocky Mountain Express* is a cinematic tribute to the engineering expertise and intensive manual labour required to build the railway through this unforgiving terrain.

Beginning with a simple shot of William Cornelius Van Horne (at the time, CPR



construction manager) and a montage of steam locomotion, the 46-minute film takes viewers on an unforgettable journey, pointing out the ultimate cost of the railway in lives lost during surveying and construction. The perils of infamous Rogers Pass and the Big Hill are conveyed in vivid detail, with views of runaway trains and the long-abandoned grades that were replaced by the Connaught Tunnel (completed in 1916) and Spiral Tunnels (1909) and, much later, Mount MacDonald Tun-

nel (1988). Even the Frank Slide of April 29, 1903, at Frank, Alta., is depicted with frightening beauty.

Poignantly, Low points out that the transcontinental line was built by immigrants who came from all parts of the world. It became an engineering marvel and a celebration of the spirit of those who designed and built it, a true testament to the new nation of Canada.

CP 2816 is the star of the film, as it glides over the original transcontinental line in concert with modern CP locomotives.



ABOVE Stephen Low (on ladder) and members of the production crew mount an IMAX camera on 2816's running board, one of numerous camera positions employed on the locomotive during filming of *Rocky Mountain Express*.



LEFT Blackcomb Helicopters' Aérospatiale AS350 B2 Écureuil C-GSRF is rigged with a SpaceCam65 image-stabilizing remote-control camera mount during filming of *Rocky Mountain Express* in British Columbia.

FACING PAGE Poster, production photo and screen image from Stephen Low's *The Trolley*, released in 2018. Toronto Transit Commission streetcars are prominently featured in the film.

Multiple generations of Toronto's streetcars are featured in the film, which draws its content from 39 cities in 16 countries.

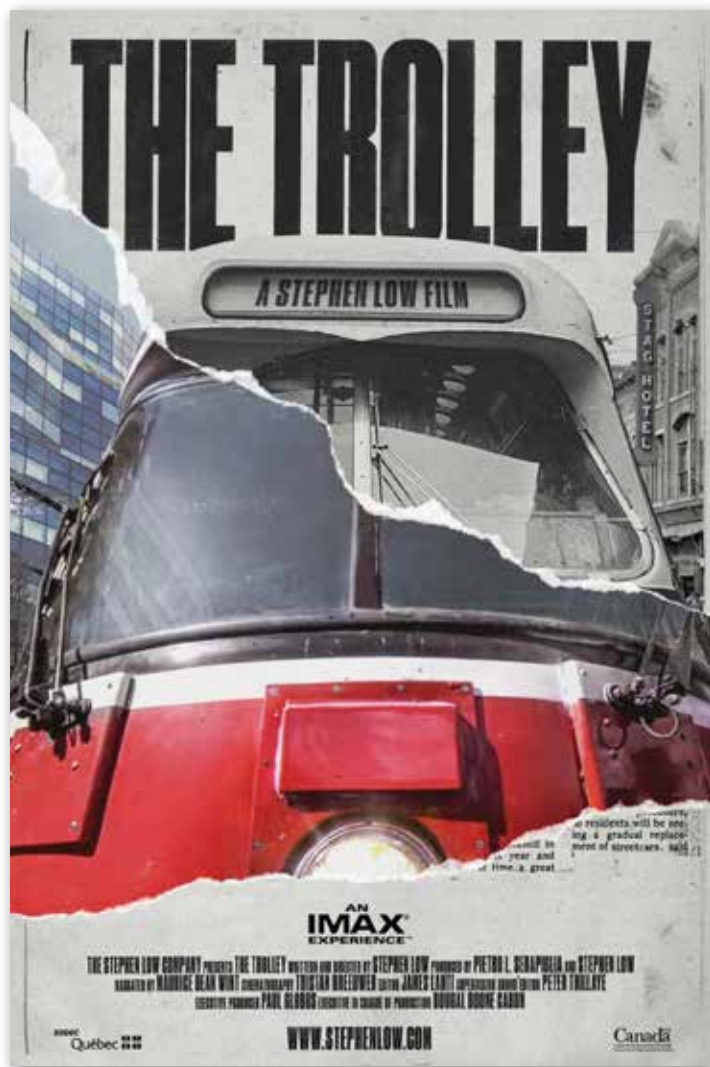
Train Time

With a 43-minute run time, Low's most recent rail-oriented film profiles the workers and operations of Burlington Northern Santa Fe (BNSF), a major U.S. railroad also having Canadian operations in British Columbia, Manitoba and Saskatchewan.⁴

The Trolley

In this 46-minute 2018 film, Low chronicles in eye-popping detail the history of the electric streetcar and how it transformed cities throughout the world. The film examines the origins and evolution of the

streetcar, and its importance as an energy-efficient and environmentally friendly mode of public transport. Once conspired against by automobile manufacturers and oil producers, the streetcar has risen again in the form of light-rail technology.





ABOVE Stephen Low with CLRV cars at the Toronto Transit Commission's Roncesvalles Avenue car barn during filming of *The Trolley*.



LEFT TTC Flexity Outlook LRV 4481 follows a camera truck westbound on King Street at Brant Street in downtown Toronto.

FACING PAGE A poster, a screen image and a production photo (mounting an IMAX camera on the nose of BNSF ES44C4 locomotive 8375) from Stephen Low's *Train Time*, featuring the trains and workers of U.S. railroad Burlington Northern Santa Fe.

With Low's film crew given unprecedented access to BNSF operations, this 2022 release gives a close-up view of modern North American freight railroading, filmed over several years in all seasons.

The film follows the journeys of goods from origin to final destination, weaving their way through the labyrinth of tracks as dispatch centres and train crews work around the clock to keep the North Amer-

ican economy humming. The film begins with children's fascination with trains and evolves into an intricate portrayal of modern railroading. Moreover, it accurately illustrates the strides women have made in a male-dominated industry.

A special interest

Low's interest in trains extends beyond North American railroads. He is particu-

larly fascinated by two-foot-gauge railways — narrow, efficient systems that played a pivotal role in both Canadian industrial history and First World War logistics. These railways offered a solution to the limitations of conventional trains during wartime. Traditional rail systems were vulnerable to enemy attack and difficult to reposition quickly. In contrast, two-foot-gauge trench railways using lightweight, prefabricated five-meter-long track sections (each weighing about 100 kilograms or 220 pounds) could be deployed quickly by unskilled labor along roads or flat terrain.

These compact railways distributed heavy loads evenly, reducing motor-vehicle ruts and minimizing the need for advanced infrastructure. Small locomotives hauled

short, 10-ton-capacity trains. Although derailments occurred, the lightweight rolling stock was easy to rerail, making the systems both resilient and practical. “It was a brilliant solution,” Low says, “a kind of low-tech ingenuity that we should appreciate more today.”

Stephen Low's Exporail connection

For railroad enthusiasts, Low is not merely a documentarian — he is a kindred spirit. Through his lens, audiences are invited to rediscover the beauty, efficiency and romance of the railways, and to rekindle their inner fascination with trains.

A longtime supporter of Exporail, Low has a special connection to the museum. *Rocky Mountain Express* and *The Trolley* have both been screened there, delighting visitors of all ages. “It’s real,” Low says of Exporail. “The kids can run around, touch, and board the rolling stock.” That sense of authenticity, he adds, has helped make Exporail the second most popular museum in Quebec. Low’s relationship with Exporail runs deep — he was one of its early volunteers, and his company donated the theatre where his films are now shown.

A storyteller's soul

Stephen Low’s legacy is one of advocacy through artistry. By marrying his technical expertise with a storyteller’s soul, he has drawn attention to the overlooked and undervalued aspects of our transportation heritage. His films are more than educational — they are elegies to a disappearing world and rallying cries for a more sustainable future.

In a world hurtling toward environmental reckoning, his message is clear and timely: the future may yet ride on rails. 

Acknowledgements

The authors thank Stephen Low for taking time out of his busy schedule to be interviewed for this article. Special thanks are also extended to Alexander Low and The Stephen Low Company for permission to use the accompanying copyrighted images.

Notes

1. The IMAX motion-picture format, employing 65mm film, specialized cameras and projectors optimized for large-screen exhibition, was created in Canada in the late 1960s by former National Film Board filmmaker Roman Kroitor (a colleague of Colin Low on *In the Labyrinth*), with Robert Kerr, Graeme Ferguson and William Shaw. In 1967, they founded Montreal-based Multiscreen Corporation, which was renamed IMAX Corporation in 1970. NFB’s Donald Brittain directed the first IMAX film, *Tiger Child*, for exhibition at the Expo 70 world’s fair in Osaka, Japan.

2. The National Film Board of Canada was created in June 1941 upon reorganization of the Canadian Government Motion Picture Bureau. The NFB’s animation unit was established by Norman McLaren in 1942.
3. Canadian Pacific repatriated engine 2816 from the Steamtown National Historic Site collection in Scranton, Pa., where it was on static display, in 1998. After its return to Canada, the locomotive was restored under contract at BC Rail’s North Vancouver, B.C., shops by a team of specialists. It was returned to operation in August 2001, more than four decades after it last moved under its own power. When CP ended its steam program in 2012 the engine was stored in Calgary. Following CP’s acquisition of Kansas City Southern and the creation of CPKC in 2023, the locomotive was reactivated for the 2024 “Final Spike Tour” over CPKC routes in Canada, the U.S. and Mexico. Following the conclusion of that 2½-month tour, 2816 was returned to storage in Calgary.
4. “BNSF Canada: Celebrating Our Employees and Customers North of the Border.” <https://www.bnsf.com/news-media/railtalk/service/bnsf-canada.html>; accessed Nov. 12, 2025.

