

A photograph of a green and yellow locomotive on a railway track, surrounded by lush green hills and a small station building.

**THE CHENGTU-KUNMING RAILROAD
IN PHOTOGRAPHS**

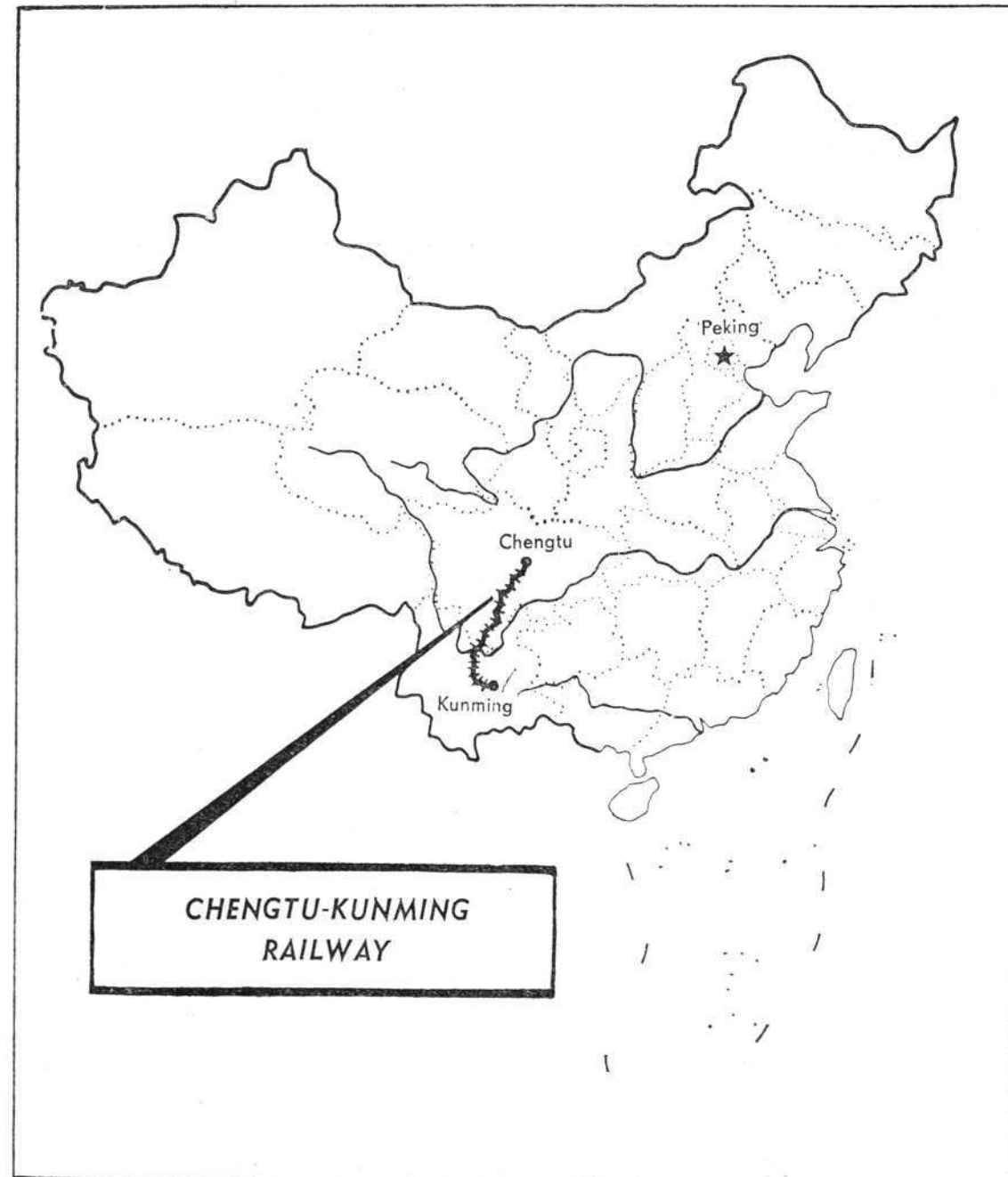
**Mountains and Rivers
Make Way**

Mountains and Rivers Make Way

The Chengtu-Kunming Railroad in Photographs

FOREIGN LANGUAGES PRESS PEKING 1976

Sketch Map Showing the Location of the Chengtu-Kunming Railway



Foreword

THE Chengtu-Kunming Railway, another important communications link in China's mountainous southwest, was successfully completed and opened to traffic in July 1970. It is a splendid achievement of the Great Proletarian Cultural Revolution and a signal victory for Chairman Mao Tsetung's proletarian revolutionary line.

This rail line snakes through the serried peaks and over the swirling waters of the Szechuan-Yunnan Plateau. From Chengtu, the capital of Szechuan Province, it winds tortuously for 1,085 kilometres to its southern terminus, Kunming, the capital of Yunnan Province. The line cuts through areas traversed by the Red Army on its Long March from October 1934 to October 1935. All along the route are lofty peaks, precipitous ravines, swift rivers, complicated geological formations and extremely changeable weather. A third of the line is situated in an area where earthquakes are frequent and reach a magnitude of seven or above. Displacements of rock mass have been known to occur over large areas in some places. Deep gullies retain heat, building up to temperatures of from 40 to 50 degrees C., while in some valleys force-10 winds often rage. Like a geological museum, these areas exhibit karst caves, underground rivers, faults, drifting sands, gas-filled layers, magmatic explosions, mud-rock flows, silt and Glauber's salt deposits. The building of a railway in such conditions is an unprecedented engineering feat in the history of China's railway construction.

The project was started in 1958, the year of China's Great Leap Forward in socialist construction. In 1962, however, the work came to a virtual halt due to the interference and sabotage resulting from the Liu Shao-chi revisionist line. Then, in August 1964, Chairman Mao issued the call: **"The Chengtu-Kunming Railway must be built at a fast pace."** From all parts of China builders converged as quickly as possible at the work-sites along the line and resumed construction. The Great Proletarian Cultural Revolution which began in 1966 further promoted the work. The builders vehemently repudiated the revisionist trash advocated by Liu Shao-chi such as his "slavish comprador philosophy" and "doctrine of trailing behind at a snail's pace." Their revolutionary enthusiasm mounted, and they determinedly applied Chairman Mao's great principle of **"maintaining independence and keeping the initiative in our own hands and relying on our own efforts."** While excavating Shamulata Tunnel they encountered an underground river which

poured over 12,000 tons of water into the work-site each 24 hours. They kept on working though waist-deep in the water. While digging a tunnel along the Chinsha River, soldiers of the People's Liberation Army railway corps drilled through hard rock in upwards of 40°C. heat. The builders fearlessly defied towering mountains, dangerous peaks, swift currents and deep gullies in their conquest of nature.

With such firmness of spirit, they cut through mountain after mountain, built 427 tunnels and 653 bridges, overcame the multiplicity of complicated geological formations and completed the entire line ahead of schedule.

A passenger on the Chengtu-Kunming Railway will first be impressed by the breath-taking views of the bridges, span after span, and the many tunnels. The train will cross the Tatu River, make its way through the Greater and Lesser Liangshan Mountains, and then pass the Chinsha River. There is an average of one large or medium-sized bridge for every 1.7 km. of rail line, and a tunnel for every 2.5 km. The combined length of bridges and tunnels exceeds 400 km. In especially mountainous sections, the line winds up and down and around constantly, so that the train is always changing direction. In one mountain the train enters a tunnel and comes out on the same face of the mountain, but tens of metres above or below. From a distance one sees "terraces" of bridges and tunnels. The difficulties and complexities of the undertaking have rarely been seen in the history of not only China's but of the world's railway building.

The completion of the Chengtu-Kunming Railway once again demonstrates the Chinese people's revolutionary spirit of self-reliance and hard work.

Linking with the Paochi-Chengtu Railway to the north, which was completed in 1958, the Chengtu-Kunming Railway forms part of the major communications artery in China's southwest and northwest, while with the Chengtu-Chungking, Szechuan-Kweichow and Kweiyang-Kunming lines, built one after another after liberation, it forms part of the railway network in China's southwest. This network, together with the Hunan-Kweichow line constructed in 1972, and other trunk lines, links up various parts of the country. The three southwestern provinces of Szechuan, Kweichow and Yunnan are highly productive and rich in natural resources. People of many of China's minority nationalities, including the Yi, the Miao, the Tibetan and the Tai, live in this region in compact community. The Chengtu-Kunming Railway has brought the southwestern border areas considerably nearer to the inland provinces. It is also tremendously significant in providing favourable conditions for strengthening the unity of the people of all nationalities in China, promoting industrial and agricultural development in the region, improving China's geographical distribution of industry and speeding up socialist construction.



On July 1, 1970 the Chengtu-Kunming Railway was formally opened to traffic, ending the centuries-long history of the Szechuan-Yunnan Plateau as an area with poor communications.



Across mountains and rivers.

THE Chengtu-Kunming Railway runs north-south on the Szechuan-Yunnan Plateau. It thrusts through places known since ancient times as impassable natural barriers—the Greater and Lesser Liangshan Mountains, the Hengtuan Range, and the Chinsha and Tatu rivers. At the beginning stage of the construction, certain foreign experts took fright at the formidable terrain and pronounced the area a “forbidden zone” for railway construction. The Chinese railway builders, however, heroically took up the challenge and decided to build one.

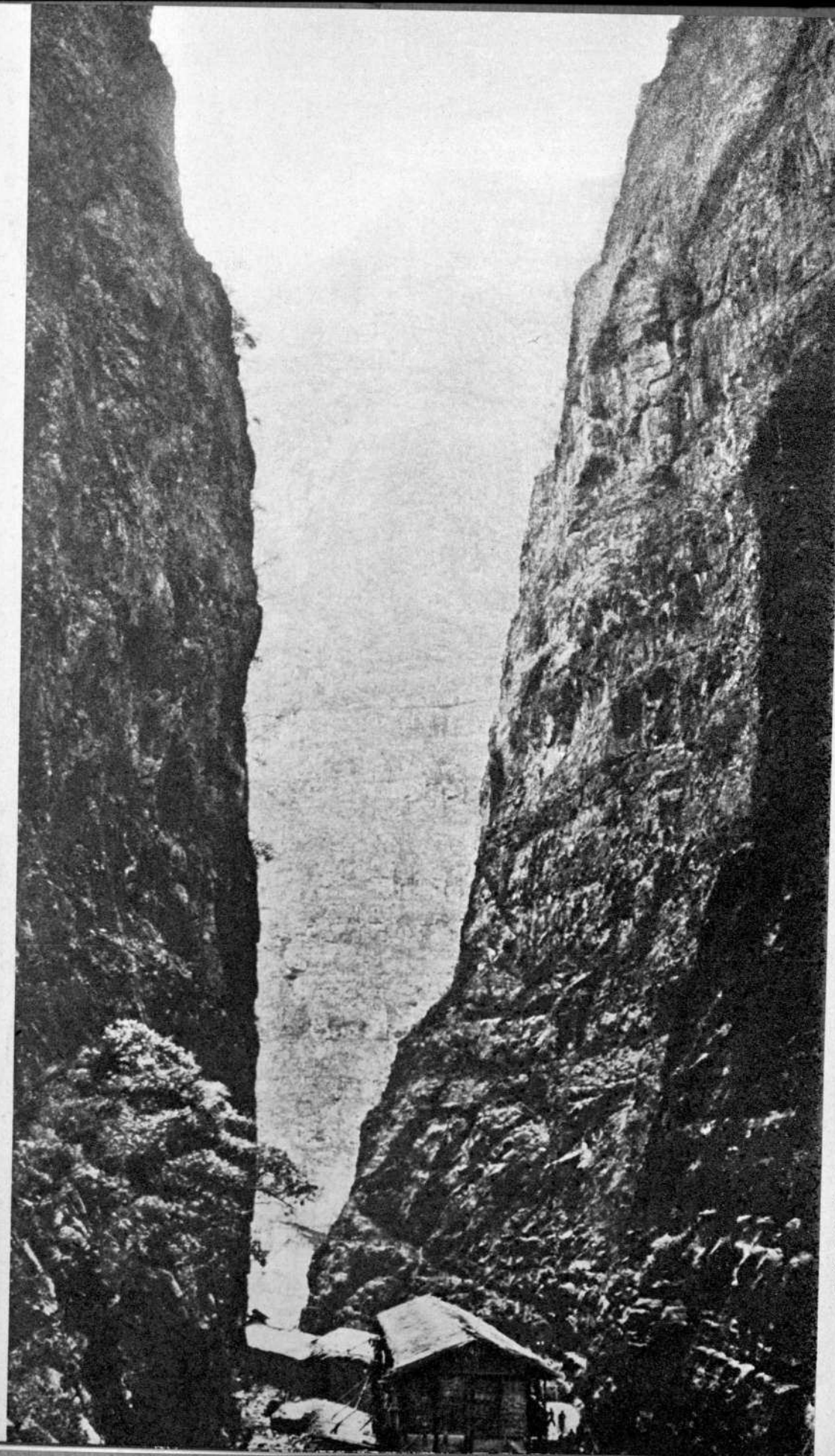
Led by the Communist Party, army and civilian builders persisted and did a good job. Their work was promoted by the revolutionary enthusiasm generated by mass criticism of the revisionist line pushed by Liu Shao-chi. Surveying the towering cliffs and swift currents, the workers said courageously: “We dare to ascend all heights and penetrate any earth formation. The perilous mountains and turbulent waters must bow to our will. We’ll surmount all obstacles in our way.” Overcoming the many difficulties, they tunnelled through the mountains and spanned the rivers with bridges, finally completing this vital trunk rail line in China’s southwest. They had conquered the so-called “forbidden zone” for railway construction!

The mountainous Szechuan-Yunnan Plateau.



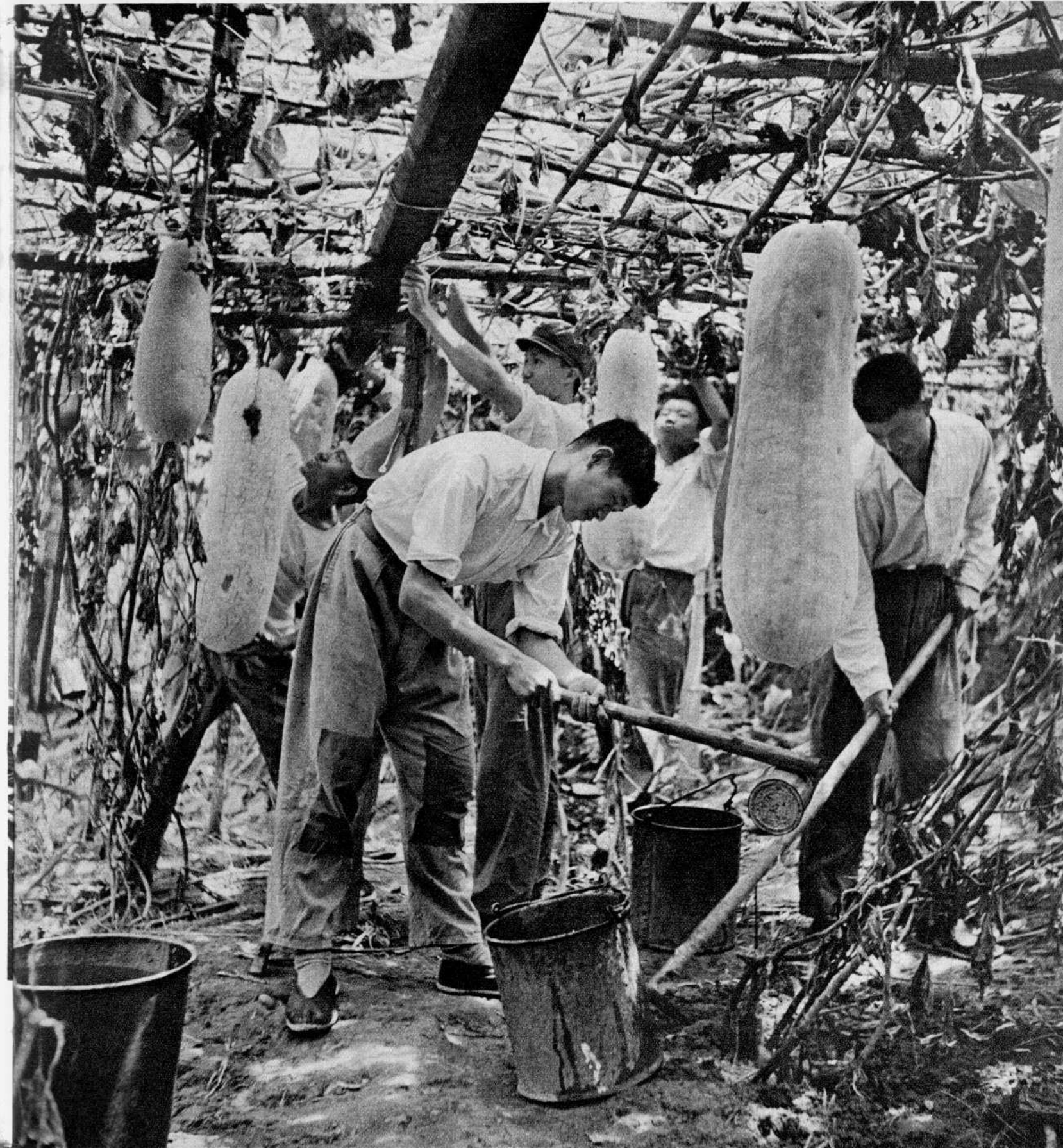
Following the route of the Red Army on its Long March in 1934-35, fighters of the PLA railway corps scale steep cliffs.





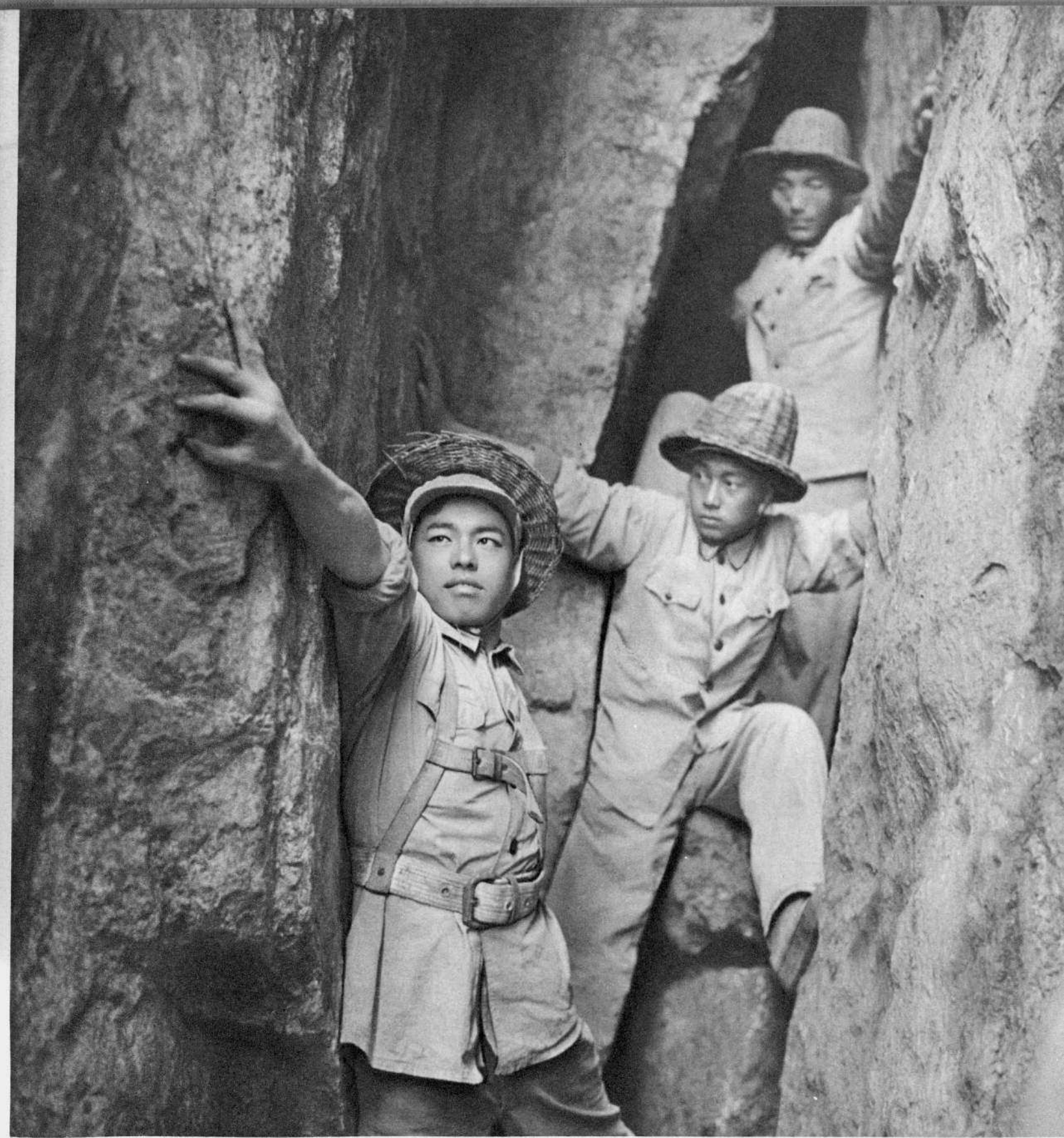
Two sword-like perpendicular cliffs form the Laochang Gorge, nearly five km. long with only a crack of sky above. Adjacent to the swift Tatu River, this was one of the danger spots in the northern section of the project. But railway builders put up their mat sheds here and waged the battle to transform nature.

In the spirit of self-reliance and hard work, the railway builders grow vegetables in order to lighten the burden of supply on the local inhabitants.





Carrying heavy equipment up a mountain.



The way to the work-site was often perilous.



Crossing the natural barrier of the Tatu River where the Red Army made its famous forced crossing during the Long March. This railway builder will start preparations on the other side of the river for the speedy construction of the railway.



Each step forward is made with tremendous effort.



Battling on the face
of a sheer cliff.

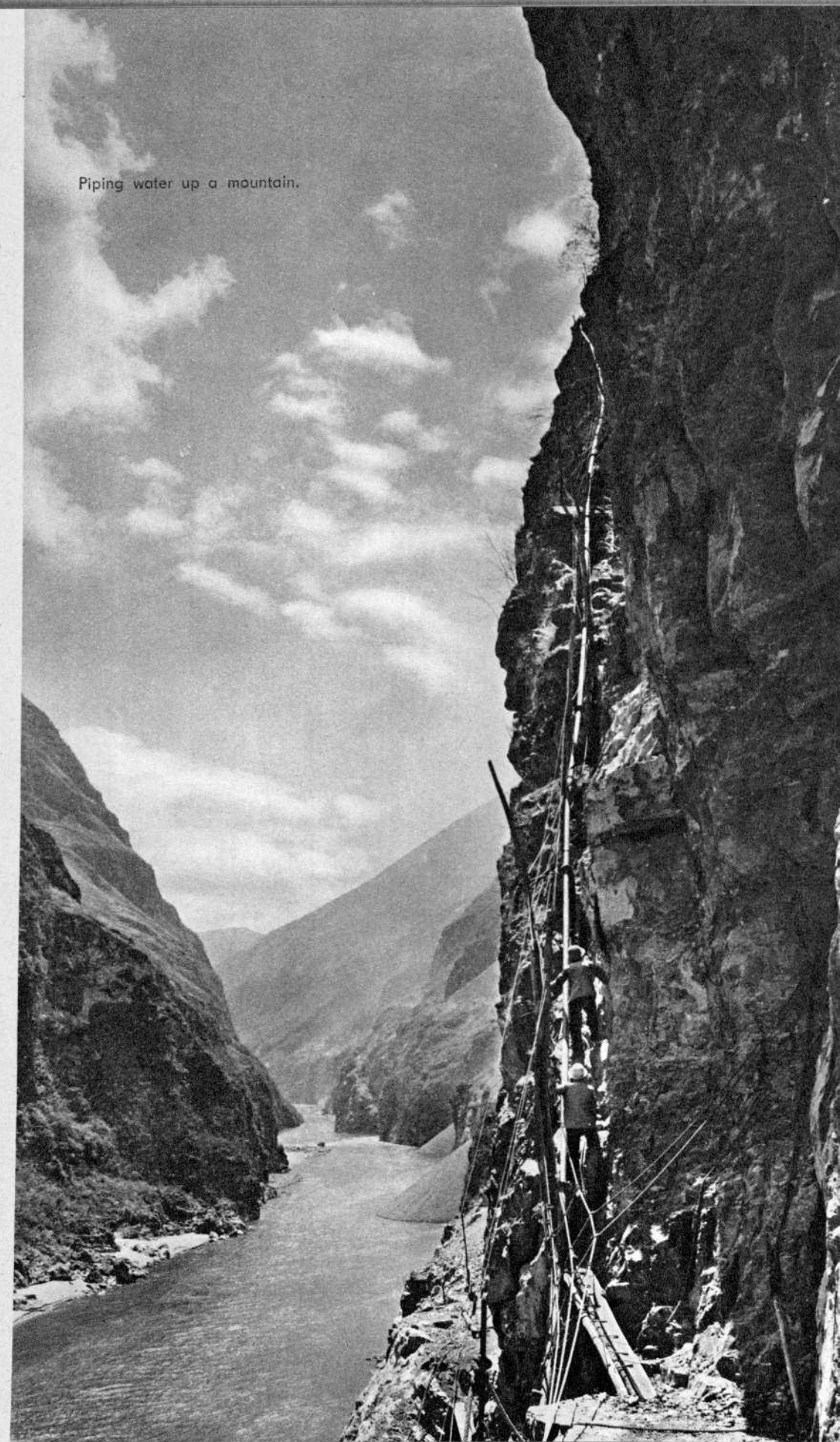
A passageway carved deep into a cliff and
a chain bridge spanning a rock chasm.



Large machinery on the way to a work-site.



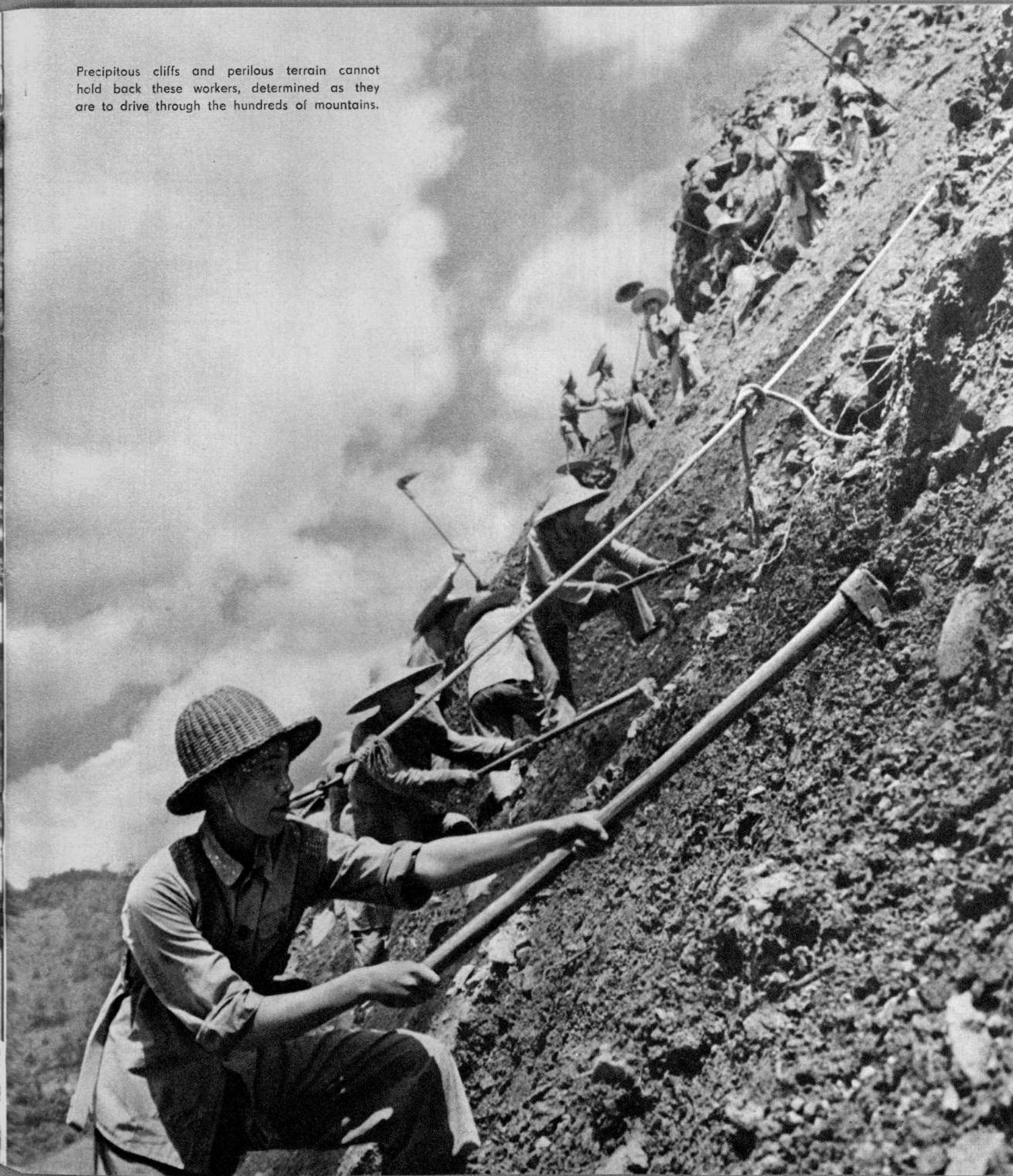
Piping water up a mountain.



The project received the active support of the local people. Militia women here take on a job of quarrying rock.



Precipitous cliffs and perilous terrain cannot hold back these workers, determined as they are to drive through the hundreds of mountains.





Complex geological conditions made the round-the-clock work of tunnelling extremely difficult, and the intrepid railway builders exerted untiring efforts to accomplish the task.



A 60-metre pier
under construction.



Battling in water.

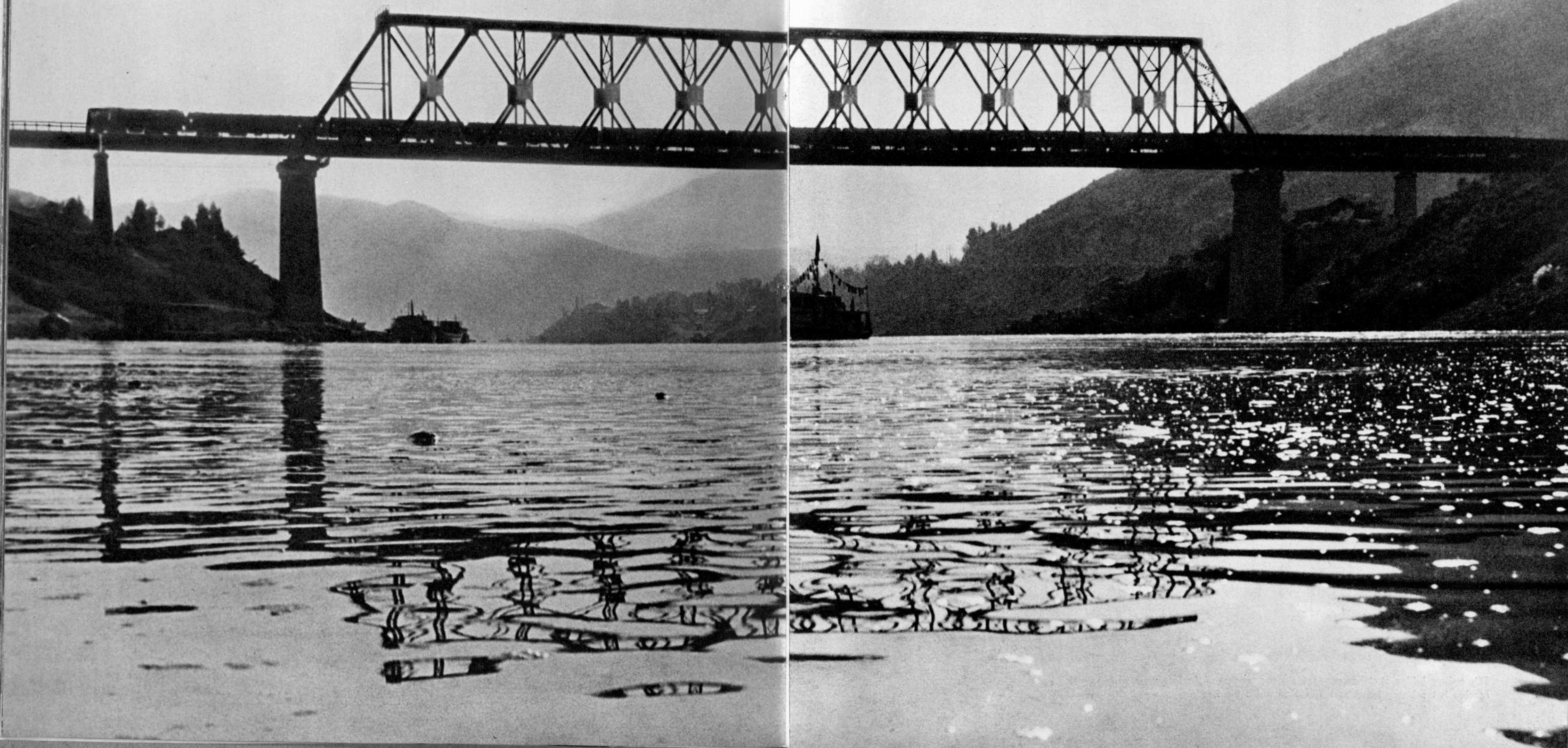
Working at high altitudes on a rope ladder.

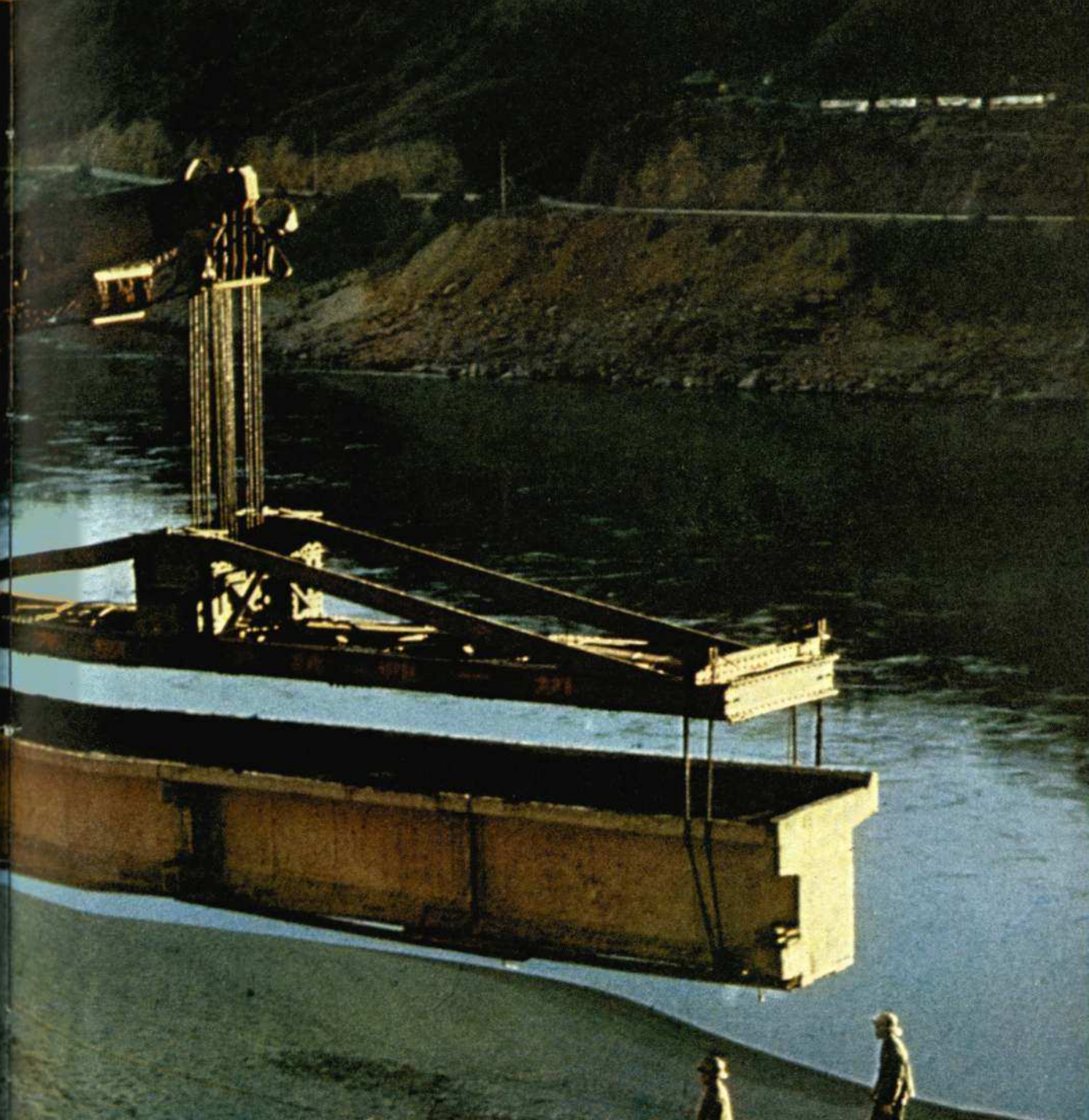


Women bridge builders.



A long-span steel bridge over the Chinsha River where the Red Army made a forced crossing on its historic Long March.

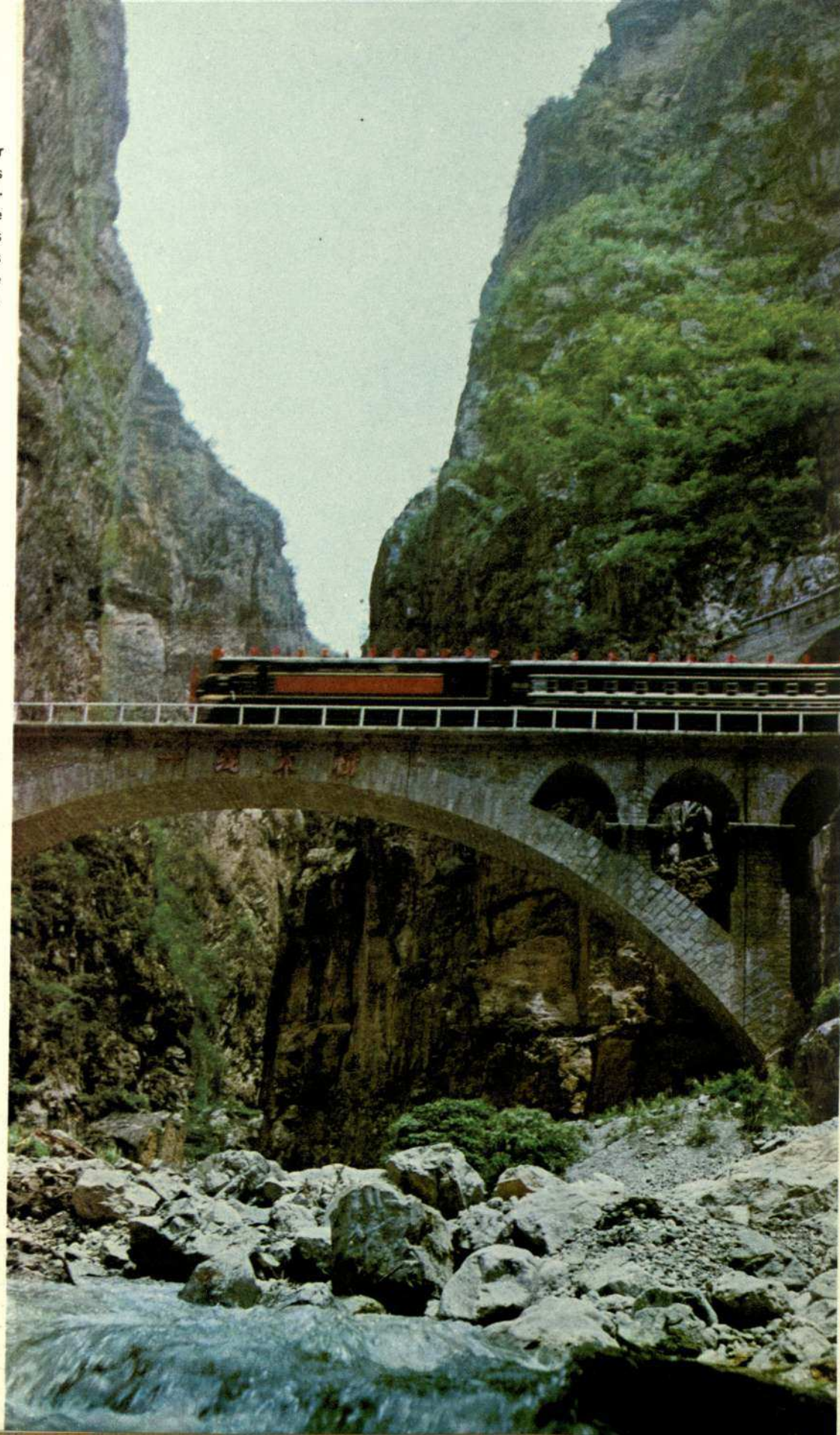






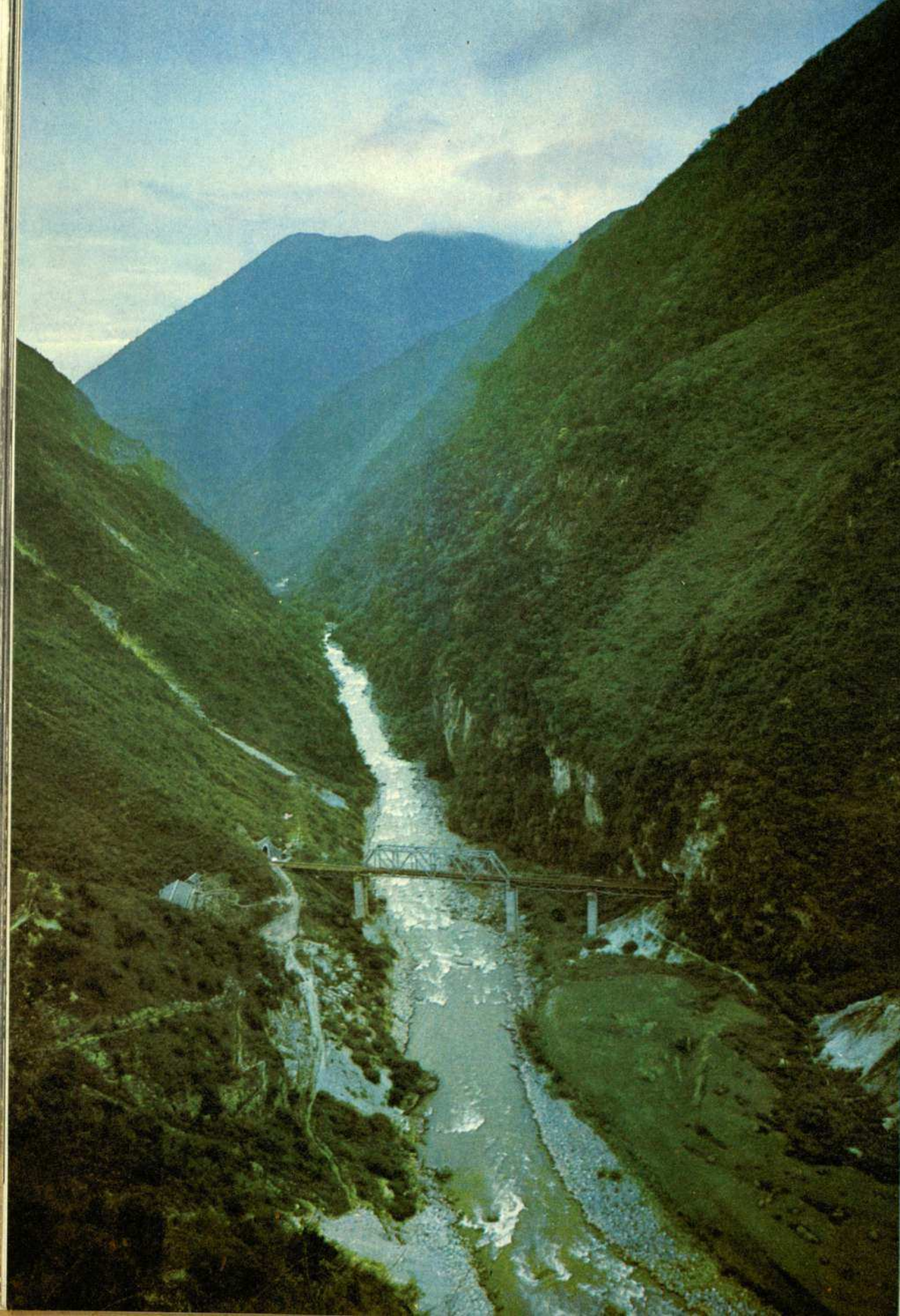
This railway bridge stretches across the lower reaches of the Tatu River, while spanning its upper reaches is the Luting Iron Chain Bridge on which the Red Army crossed during its Long March.

Fearing neither hardship nor danger, the railway builders worked from a platform suspended on ropes from the cliffs on either side of this narrow gorge and in 55 days built this single-arch stone bridge connecting two tunnels.



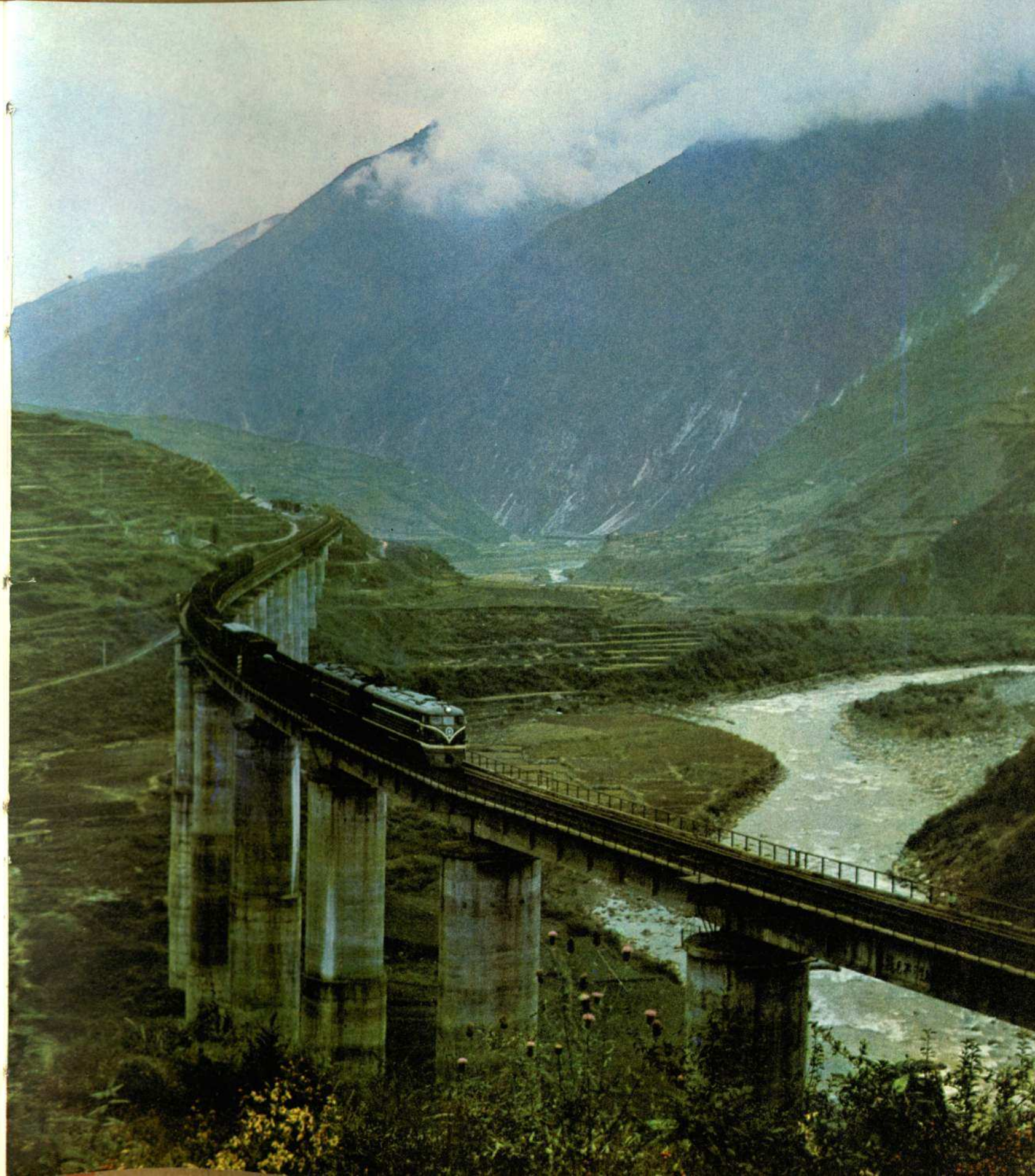
The construction materials for this 40-metre trestle were all obtained locally.

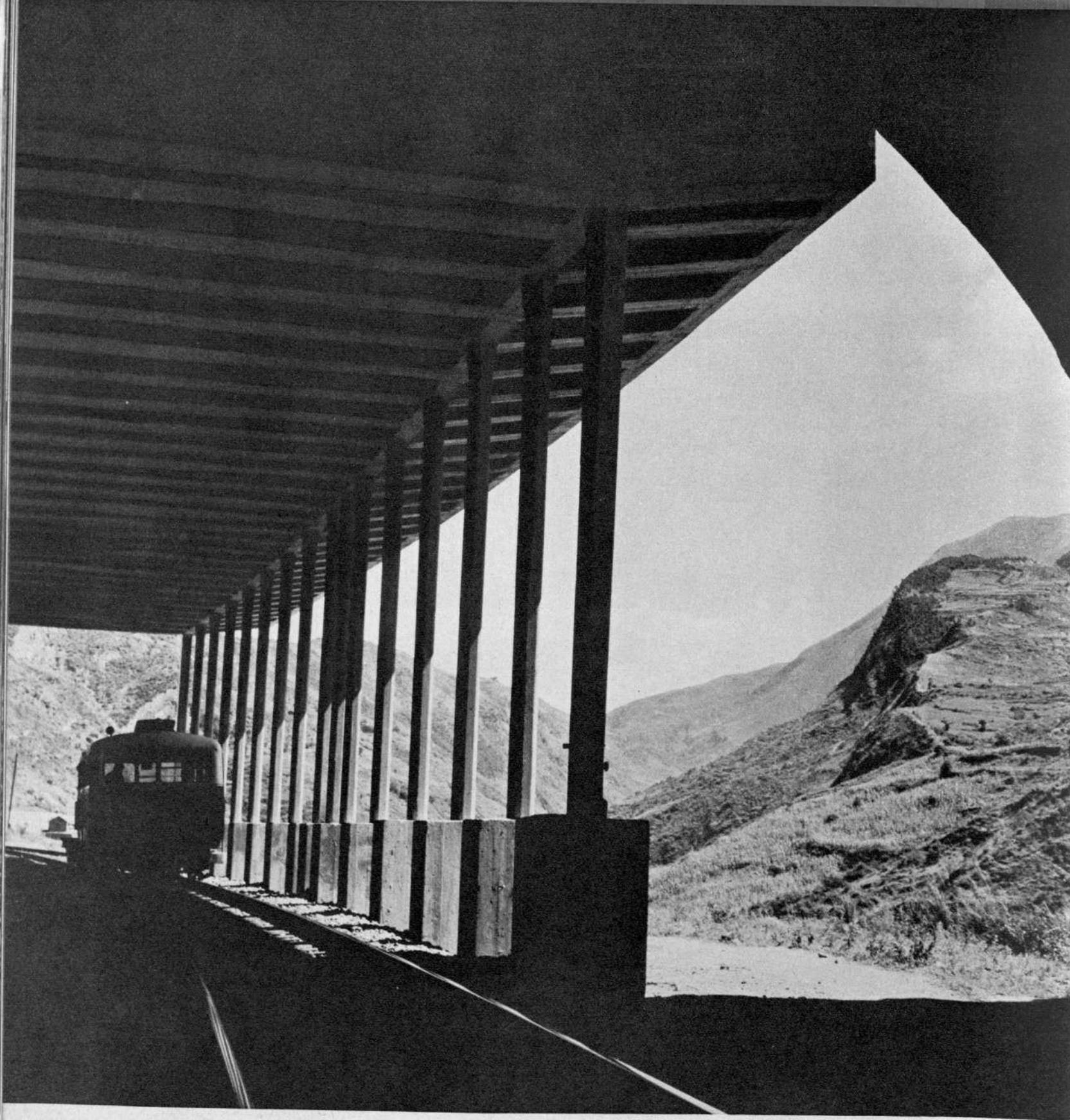




Here the train leaves
one tunnel, crosses
the river and imme-
diately enters another.

The train winding
through a valley in
Szechuan Province.





As safeguard against falling rocks from above, a special column-supported extension of the tunnel roof has been built at either end.

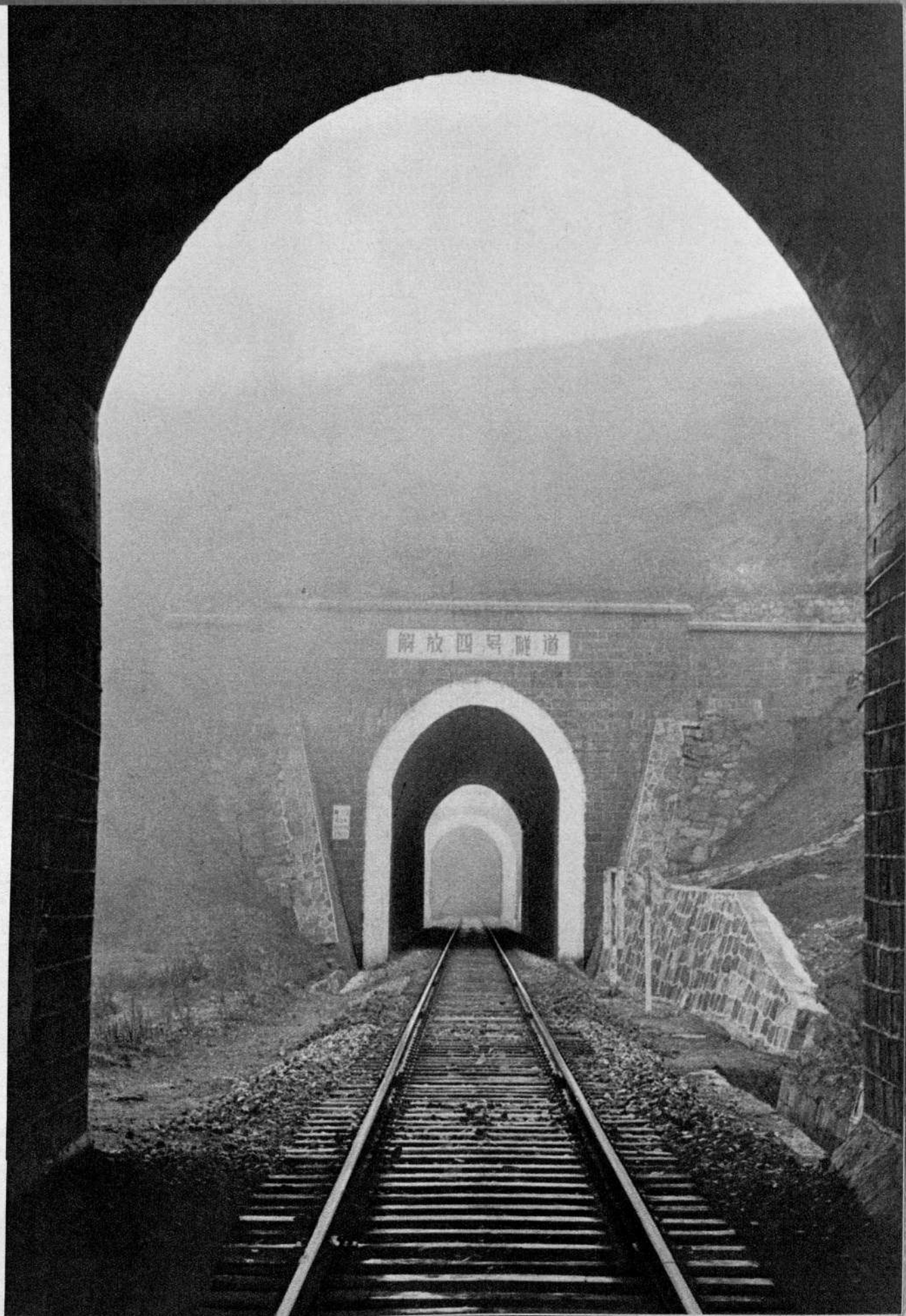


Clearing treacherous rocks to ensure safe passage.

In this area where granite had been weather-pulverized to silt, measures have been taken to prevent flooding and mud-rock flows.

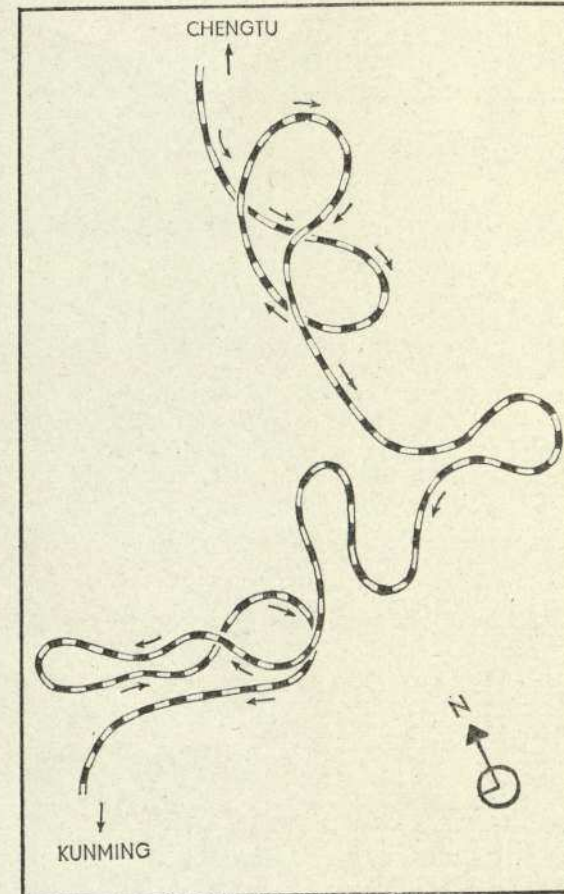


Along the entire length of the railway there are 427 tunnels. Here is a section where the line cuts especially frequently through mountains.

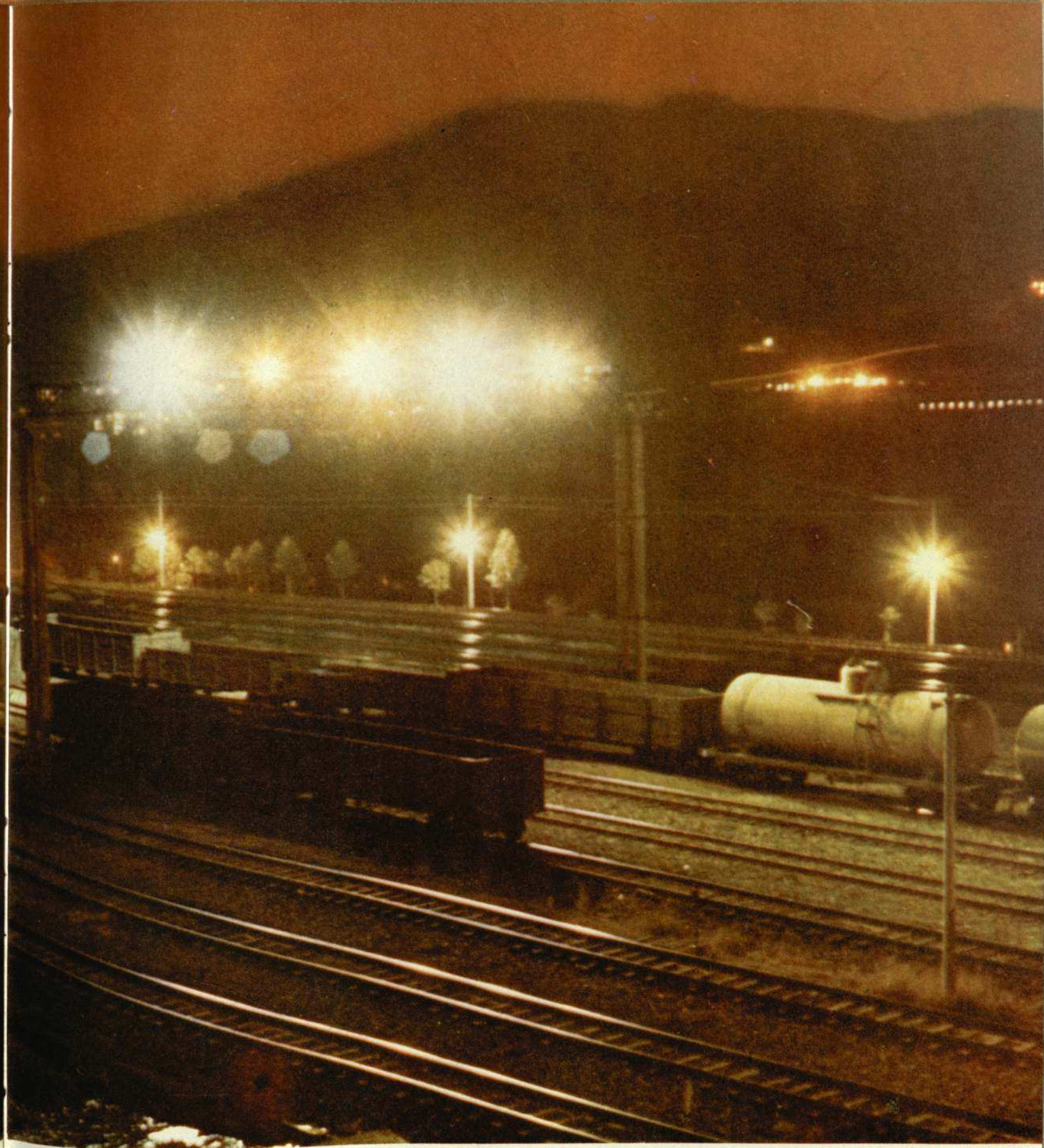
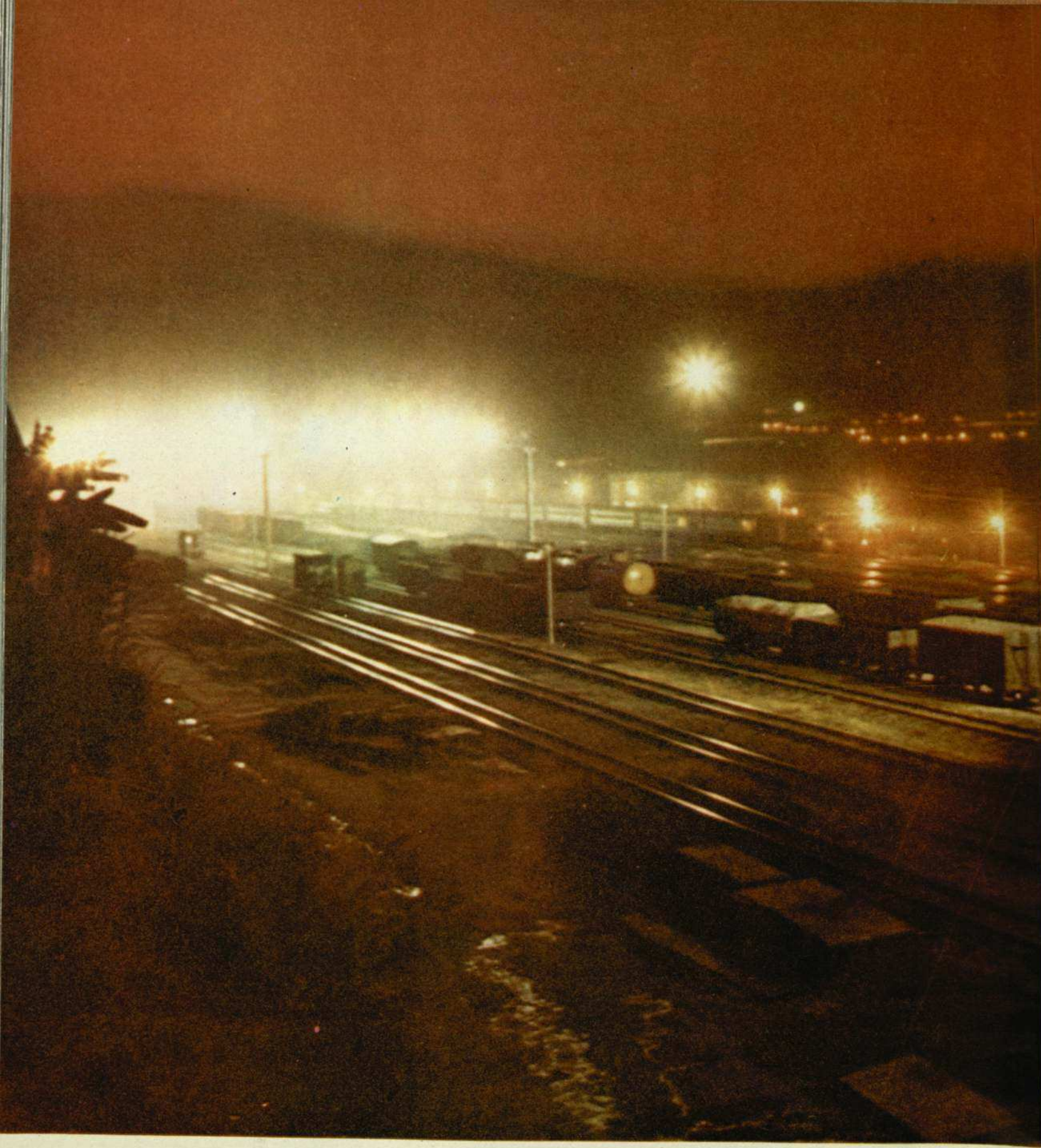




Sketch of an Especially Tortuous Section of
the Chengtu-Kunming Railway



Many sections of the
railway spiral through
the mountains.





The diesel locomotives for the entire line were designed and built by China.



The first generation of Pai nationality signal women.



The final rail link-up. On July 1, 1970 the Chengtu-Kunming Railway was formally opened to traffic amidst the cheering of thousands of people.

Passengers and goods pass safely through mountain fastnesses and over swift currents.





A thousand-year dream come true! Members of the various nationalities that have lived for generations in the mountains on the Szechuan-Yunnan Plateau have their first train ride.

THE Szechuan-Yunnan Plateau has abundant natural resources — minerals buried deep underground from time immemorial, water, and rich green virgin forests.

The Chengtu-Kunming Railway has not only greatly improved the communications and transportation there, it has also made the plateau a flourishing producer region. For instance, it has shortened travel time from Chengtu to Hsichang, a major junction on the plateau for the collection and distribution of goods, from five days by truck to 13 hours by train. Many new towns have sprung up along the line with newly built iron and steel enterprises, iron, coal and asbestos mines, hydro-power stations, machine factories and lumberyards. The Szechuan-Yunnan Plateau is bound to undergo still greater changes as the entire country's socialist revolution and construction surge ever forward.

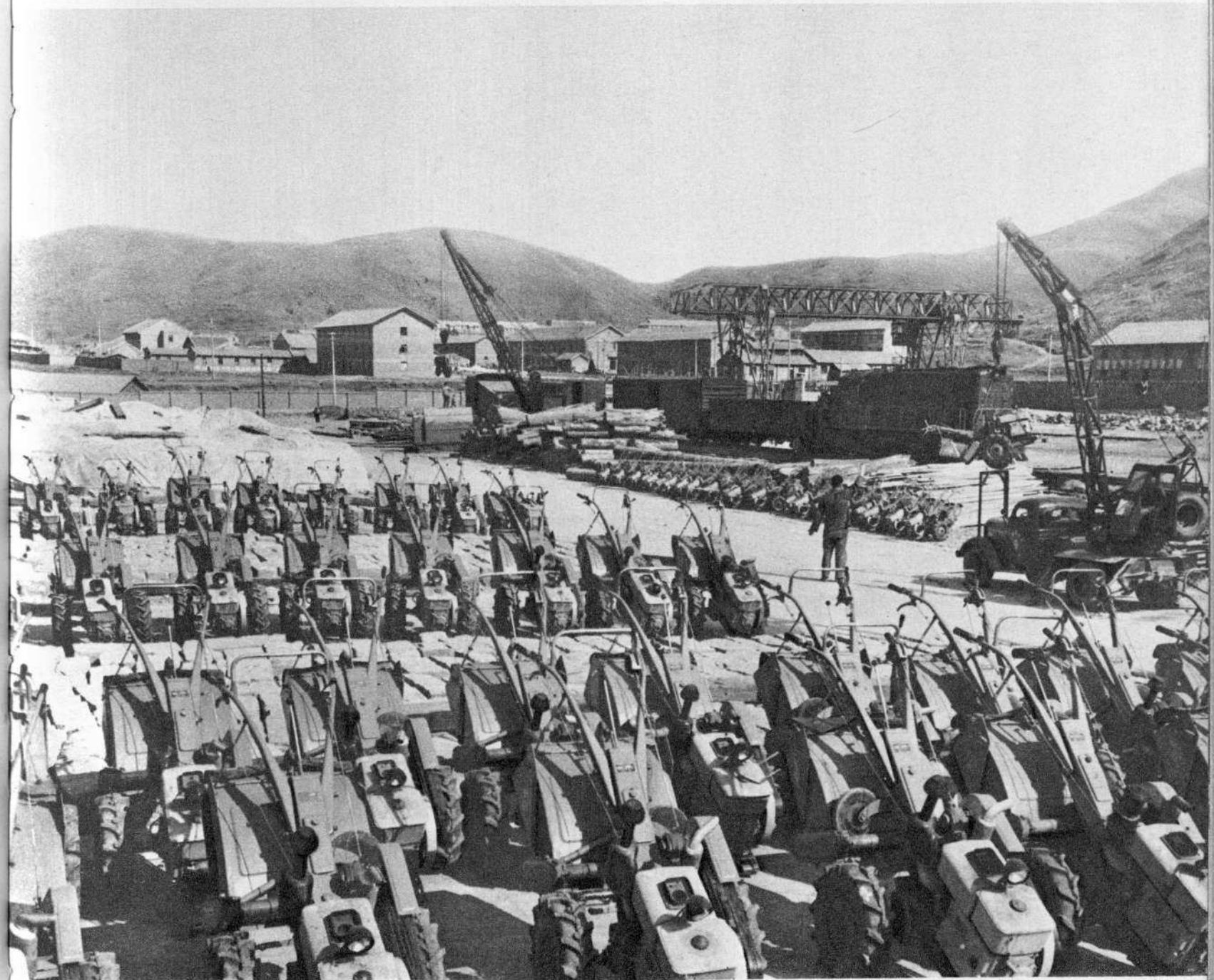
The rail line links China's southwest closely with other parts of the country and speeds the transport of construction materials. Kunming Station is the dispatching point for timber and other products from the Yunnan area to all parts of the country.





A goods train loaded with construction materials winds its way along the route.

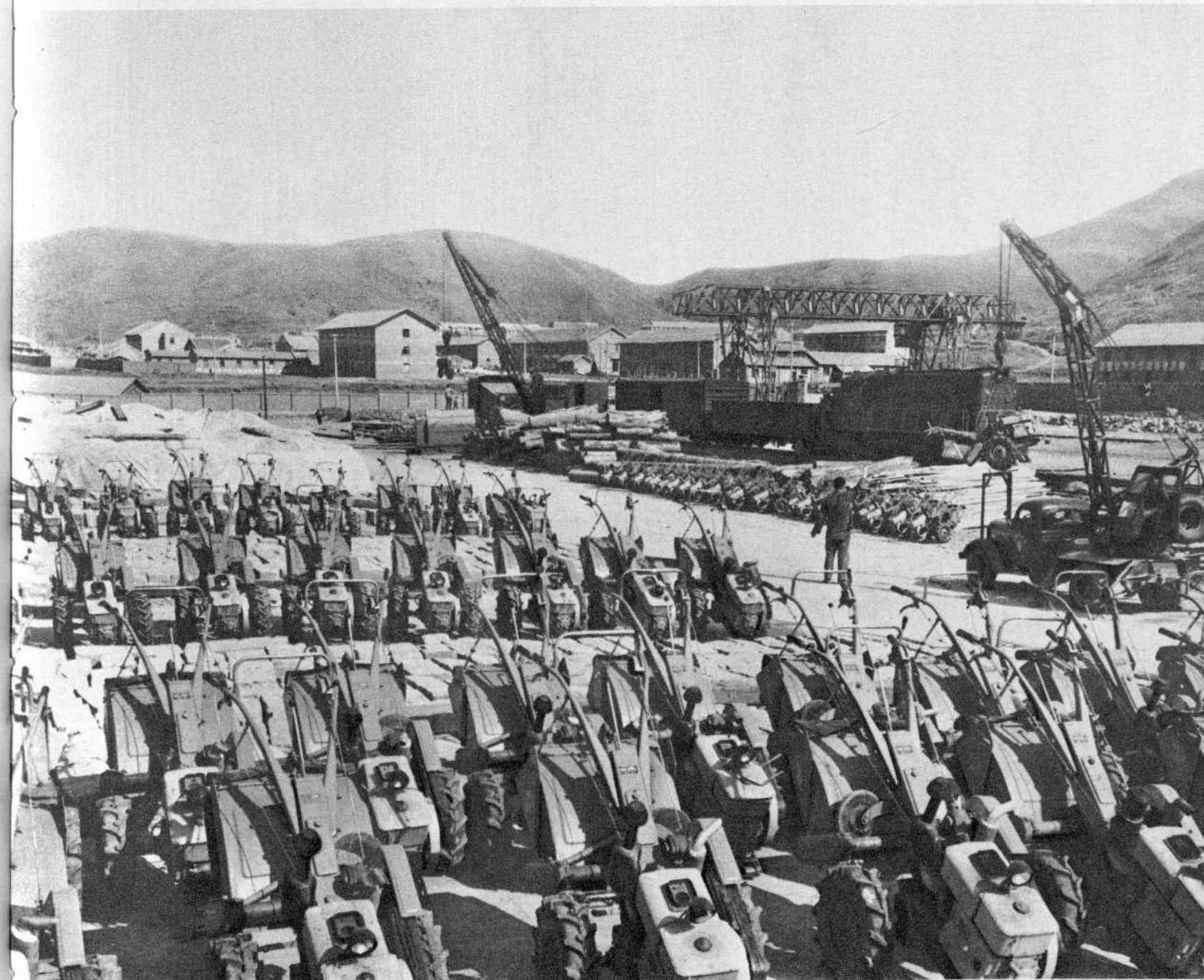
These walking tractors have arrived at Hsichang Station and will be delivered to the Yi people in the Greater and Lesser Liangshan Mountains.





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Timber ready for transport. Following the completion of the railway many virgin forests have become lumberyards.

Minerals buried deep in the earth are being extracted.

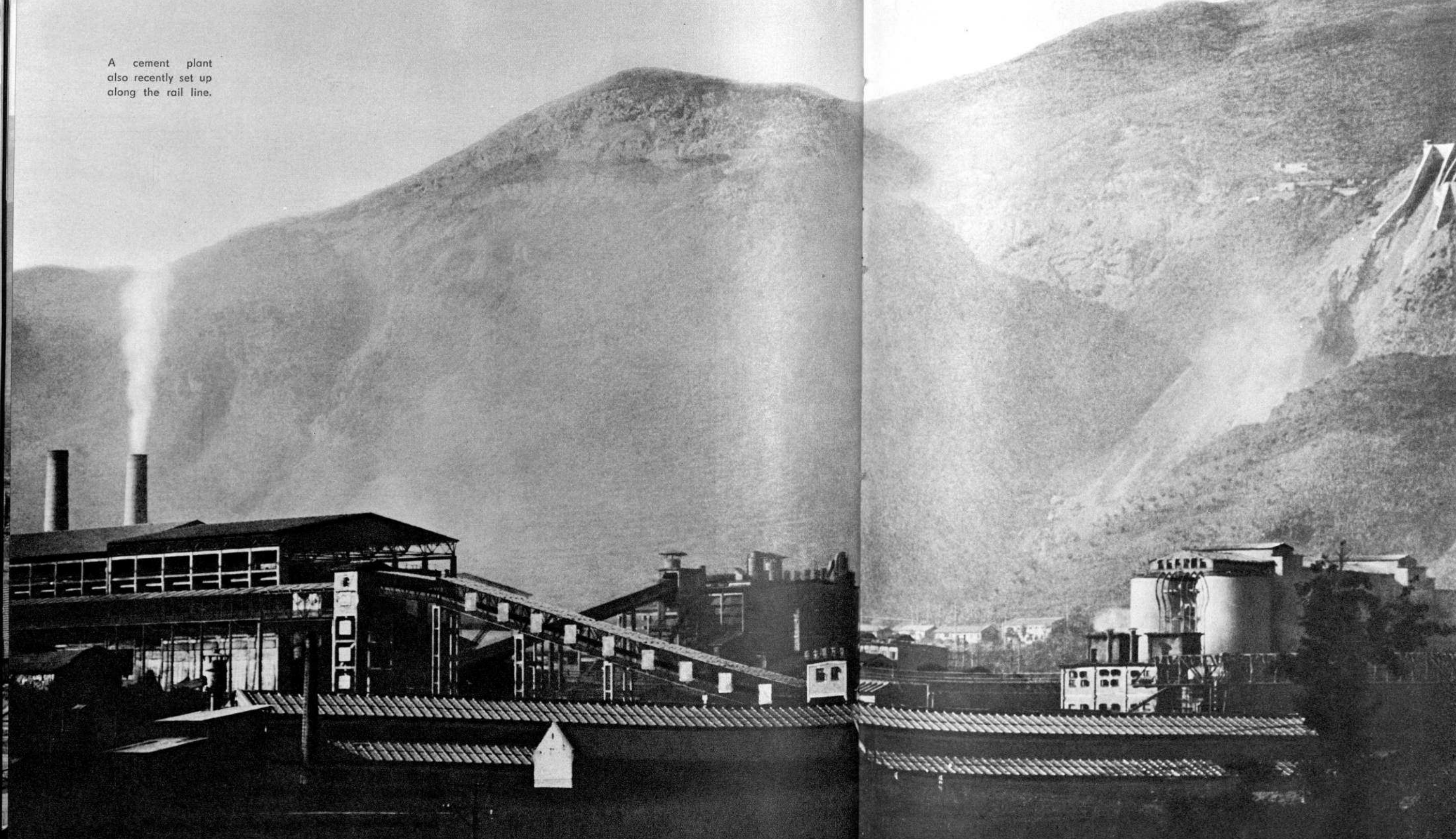


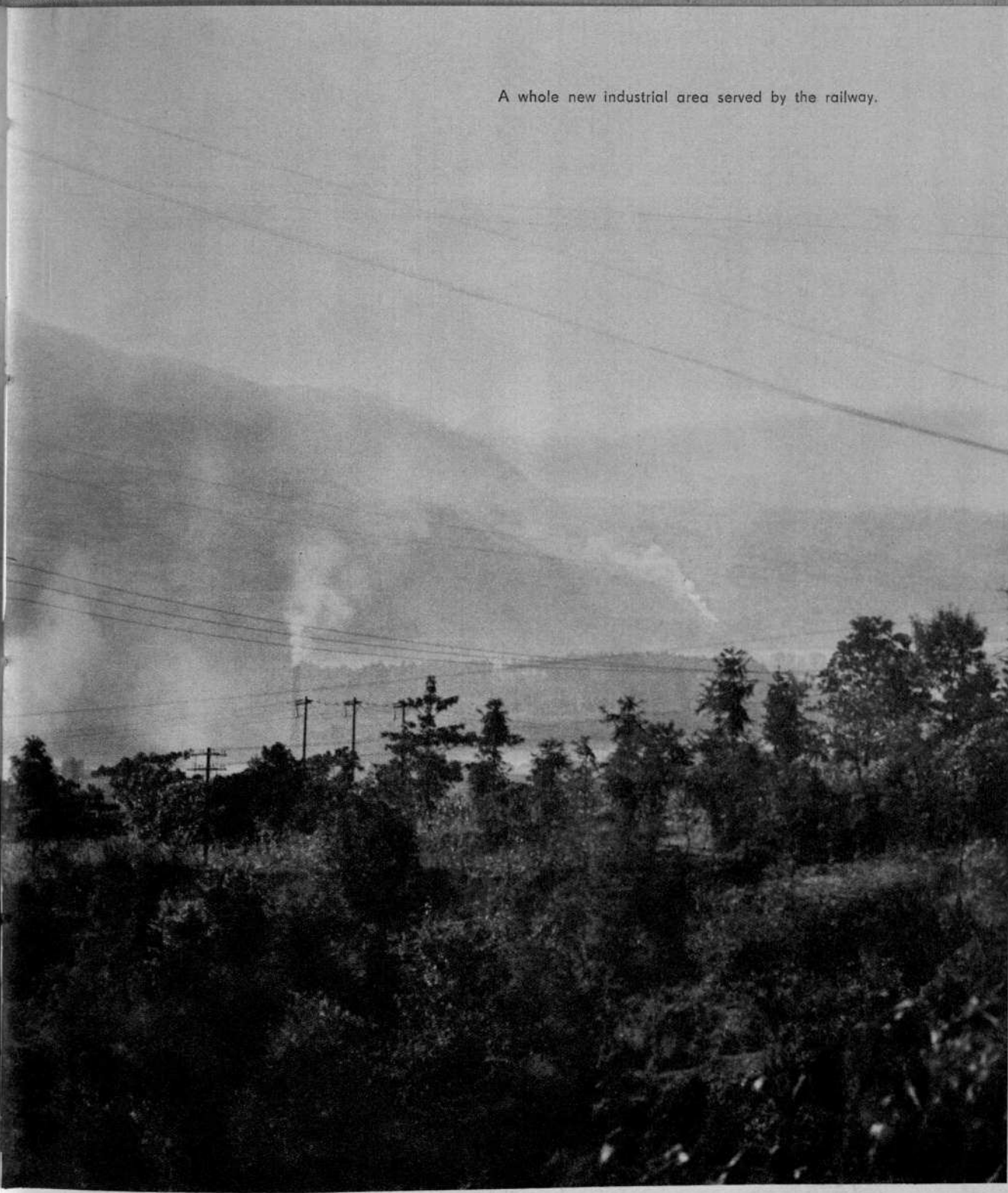
A small iron and steel plant built recently beside the railway.



And a new hydro-power station.

A cement plant
also recently set up
along the rail line.





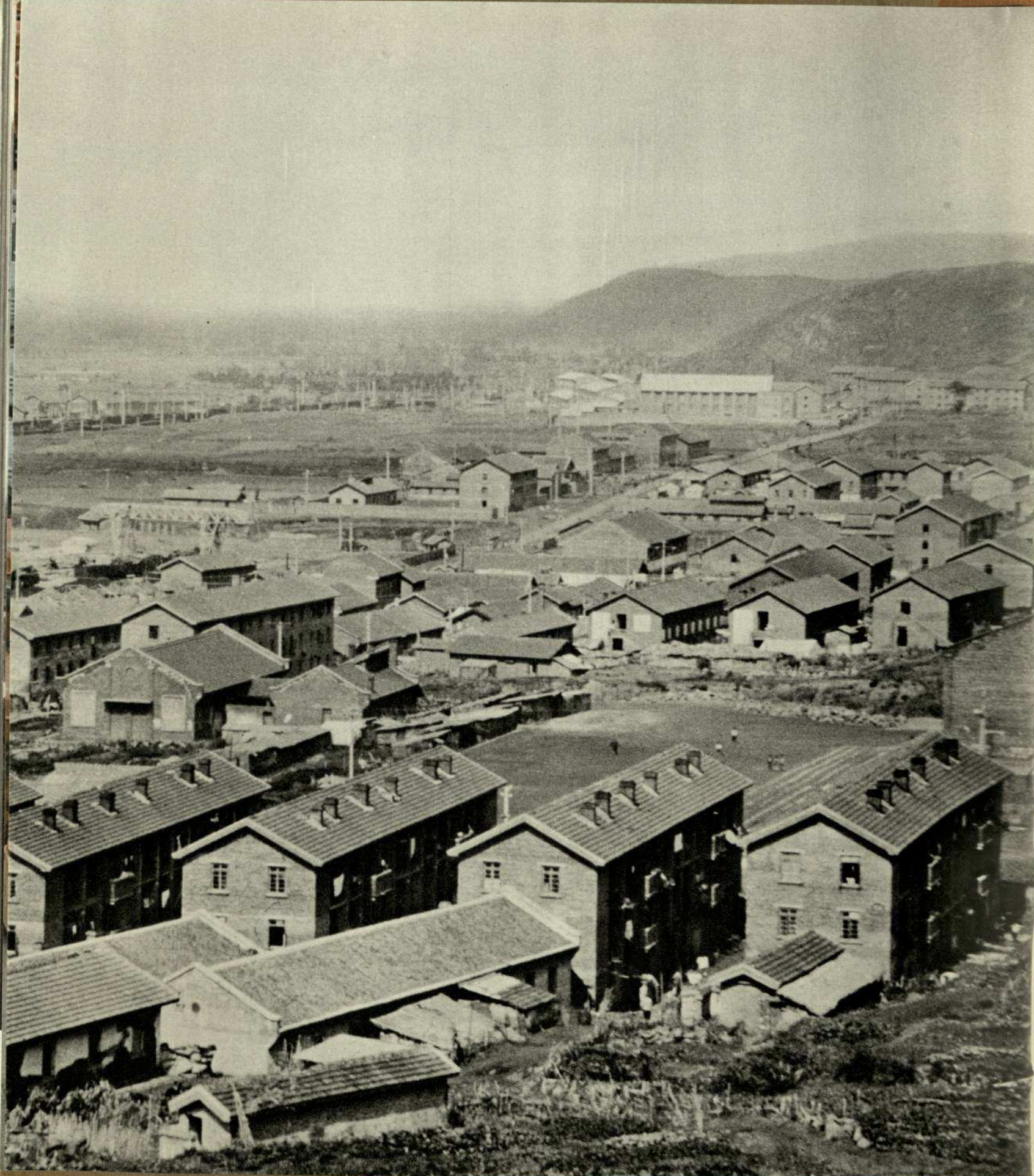
A whole new industrial area served by the railway.



Diesel engines manufactured in the Chu-hsiung Yi Autonomous Prefecture ready for delivery to various places in the countryside.

The railway greatly promotes the mechanization of farming on the Szechuan-Yunnan Plateau.

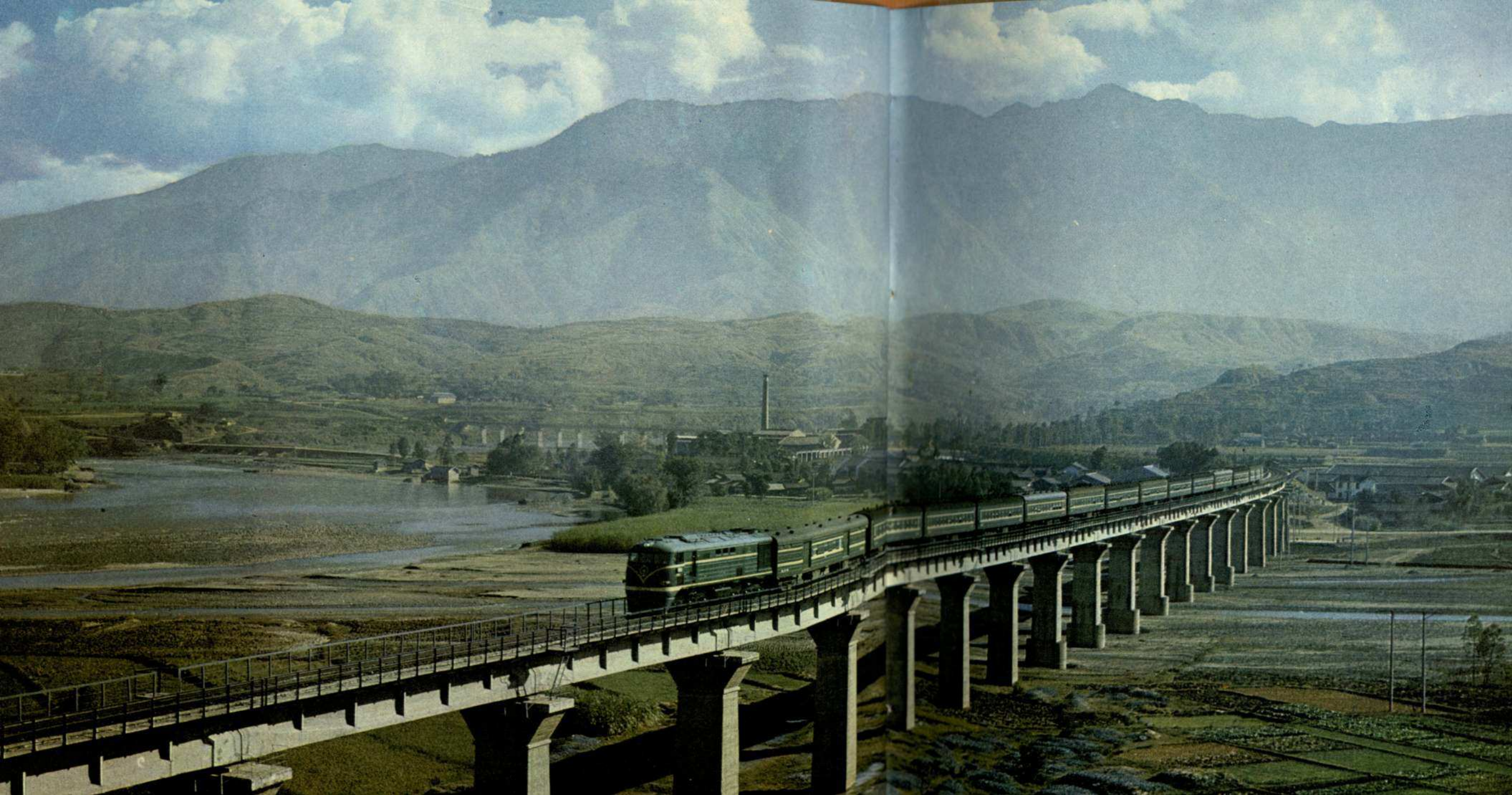




New towns have mushroomed along the line. These new buildings replace the few mat sheds that were the only structures at Matao in Hsichang County before the railway went through.



The railway brings increasing quantities of daily necessities to the people of the various nationalities living in the mountainous regions of the Szechuan-Yunnan Plateau.



One of the trains on the line.

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