

## THE ORIENT EXPRESS

They'll move faster and travel farther, crossing mountains, deserts, jungles-even oceans. Asia's path to the future is railroads. All aboard.

By George Wehrfritz

Wheels of Steel

WAS PURE FRONTIER MELOdrama. Last September, on a rostrum festooned with banners, South Korean President Kim Dae Jung pledged "to heal the wounds of a divided people," then pushed a remote detonator, blasting a small crater to begin a new railroad line that will link the South and North. As VIPs cheered, fireworks hissed skyward and burst overhead. But for an occasional chirping mobile phone and the North Korean watchtowers visible on distant hilltops, the scene might have passed for a 19th-century groundbreaking in the golden age of rail.

What was really being inaugurated was the birth of a new rail age, not just on the Korean Peninsula but across Eurasia. So far the revolution remains largely in the minds of efficiency experts yearning to cut the cost of shipping freight and civil engineers pining to build futuristic tunnels, bridges and trains. But concrete plans, if not tracks, are already being laid. During a May visit to Thailand, Chinese Prime Minister Zhu Rongji offered \$4 billion to fund a rail link between Bangkok and Kunming. The Malaysian government has commissioned a gargantuan feasibility study that maps out a rail network that would link nearly all of Southeast Asia to China. By 2010 it might be possible to

board a passenger coach in Singapore bound for Bangkok, Phnom Penh, Hanoi, Beijing, Ulan Bator, Moscow, Paris and finally London. Travel agents anticipate scheduled passenger service from the port of Pusan in South Korea to Berlin by 2004-which also means Korean exports could be delivered overland to Europe.

A diverse-and powerful-cast of characters shares these dreams. Boosters include

South Korea's Kim Dae Jung, Malaysian Prime Minister Mahathir Mohamad, Russian President Vladimir Putin and all of China's senior leaders. When a European Union delegation called on North Korea's "Dear Leader" Kim Jong Il in Pyongyang recently, it urged him to open rail transit between Korea and Eurasia, arguing, as Finnish diplomat Markku Heiskanen put it, "that the Trans-Siberian and other Eur-

asian railway networks offer a competitive option to sea routes via the Suez Canal."

grounded in the passing of the cold war and globalization's seductive lure. Borders across Asia are open and trade is exploding. At the same time the shine has come off autos and trucks. For the past half century cars were king and roadwork dominated government development agendas. Bei-

jing's notorious bad-air days are an eloquent rebuke to that strategy. Asian governments are coming to realize that "future increases in road traffic may no longer be addressed by matching increases in road infrastructure," says Pierre Chartier, chief railway advocate at the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). That means railroads may move to the fast track,

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lanan-Korea tunnel-The project would

L.Kubinyi

involve the longest and deepest tunnel

Trains were the currency of power.

still engenders strong emotion

Something elemental is happening,

something of an unwelcome imposition, with links to the imperialist past. They hauled tin and timber in British Malaya, sugar in Dutch Indonesia and rubber from French plantations in Vietnam. Kazakhs, who saw their first railways under the Bolsheviks in the 1920s, called them Shaitan-arba-devil carts.

New construction could make it possible to travel from Singapore to London by train by 2010. The DMZ: Sé complete a link to the North within from Pusan would Turugart Pass cut transit time to A line through 16 days and save Ulan Bato months, and save it's the Tien Shan eager to start MONGOLIA uire 28 tunnels the World War II Japanese line

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ILLUSTRATION BY LASZLO KUBINY

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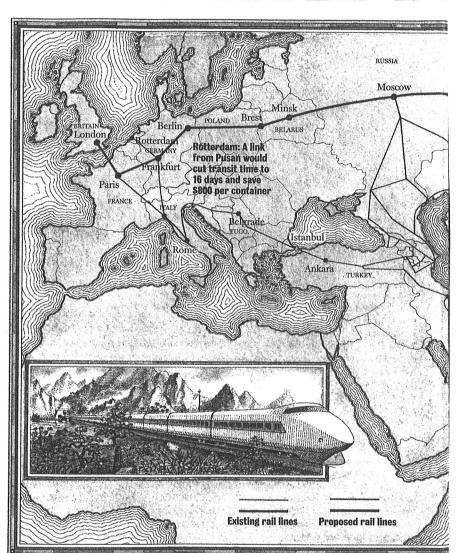
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# THE ORIENT EXPR

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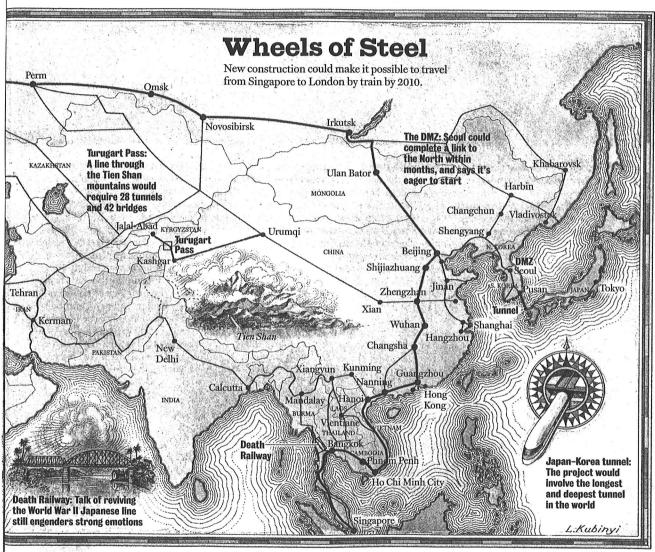
ILLUSTRATION BY LASZLO KURINYI

## ESS

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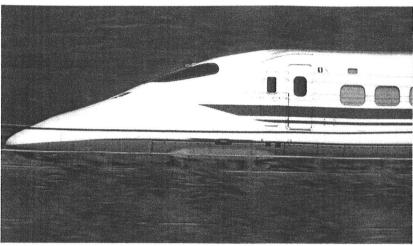
Something elemental is happening, grounded in the passing of the cold war and globalization's seductive lure. Borders across Asia are open and trade is exploding. At the same time the shine has come off autos and trucks. For the past half century cars were king and roadwork dominated government development agendas. Bei-

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VISION OF THE FUTURE: Japan's bullet trains could one day travel by tunnel to Korea

Japan, the region's first modern imperialist state, used railroads to subjugate Korea and Manchuria. The "fire cars" pulling out of China's treaty ports made ancient trade routes like the Grand Canal obsolete. Imperial Russia's most ambitious public work, the 8,591-kilometer Trans-Siberian Railway from Moscow to Vladivostok, gave Moscow a toehold in Asia that remains firm to this day. By the 1930s it was possible to travel by train from Europe to the southern tip of Korea, a route used by hundreds of Jews escaping Nazi Germany.

World War II and its aftermath ended

down by the British—has grown by 150 percent over the same period, compared with just 3 percent for railways.

ON THE NORTH BANK OF THE IMJIN River, South Korean engineering battalions have cleared a 40-meter-wide corridor four kilometers to the demilitarized zone. Rails and concrete slippers (ties) stand ready on pallets, and a station with customs and immigration facilities is rising in an area that used to be carved up by earthworks, cabbage patches and minefields. The rail link to the North, which has been delayed by Pyongyang's refusal to agree on a route through the DMZ; could be finished in a matter of months, and the South

A hard link from Pusan to Rotterdam, she estimates, would cut shipping time from 26 to 16 days and save \$800 per container. Already Seoul, Beijing and Moscow have pledged more than \$1 billion to revamp North Korea's decrepit railways, where top speeds are now just 30km/hr. Son Hak Rae, South Korea's top railway official, says planning is underway to raise speeds along the main north-south trunk line to 100km/hr for efficient connection to the Trans-Siberian Railway, Pointing to a map in his sprawling office, he forecasts a major realignment in Northeast Asia. "We've always been caught between two superpowers. Japan and China," he says. "But now we can take advantage of our

geopolitical location."

Moscow holds a similar view. Since coming to power, President Putin has emphasized railways in his dealings with Asia, promoting the Trans-Siberian as a low-cost shipping route to Europe for Japanese, Chinese and Korean exports. Russia lowered tariffs in the

mid-1990s, resulting in double-digit growth in freight volume in 1999 and 2000. "The most important thing is that Russia serves as a transit corridor," says Mikhail Deliagin, director of the Institute for Problems of Globalization in Moscow. "If we don't become this bridge, the country will simply fall away from Europe and Asia."

For China, currently the world's most prolific railway builder, the problems are different but equally urgent. Beijing lays between 600 and 1,000 kilometers of new track every year, a construction rate faster

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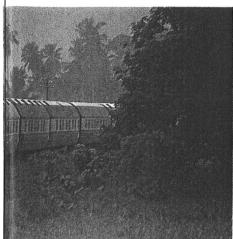
Asia's first rail age. The cold war divided the continent into ideologically opposed camps. Sea lanes grew in prominence as Asia's "tiger economies" exported their way to prosperity. A middle class rose, ushering in the automobile age and making the passenger car a symbol every bit as potent as locomotives had once been. The result: an imbalance between road and rail construction. China's road network has expanded three times faster than its railways since 1980, and India's road grid—in much worse shape than the rail network laid

is eager to get started. For President Kim, the new line would provide much-needed proof that his "sunshine policy" of engagement with the North is achieving concrete progress. But Seoul's ambitions are driven as much by economics as by politics. "Practically speaking, we're an island," says Choi Yeon-Hye, a professor of marketing and management, at the Korea National Railroad College who has researched Europe's railway revival. "But through the Trans-Siberian Railway we can connect directly to Europe."

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LEFT TO RIGHT, MASTER PHOTO SYNDICATION—CORRESSED AND BERRY—MACRUM.

HEROTINUEDTA—MACRUM CENTRAL MARAN FAMILY AND COMPANY ILOUATE PICHTY





than America's at the height of its rail boom in the 19th century. At that pace, the country should vault past Russia and India to boast the world's second largest rail network, after the United States', by 2005. The frenzy is spurred by political worries: Beijing is hoping that the new lines will help its impoverished western provinces tap foreign markets and promote economic growth, without

which these restive provinces might eventually break away.

Balanced growth, the core ideal in Beijing's "Go West" development strategy, is pushing industry ever farther from seaports. By raising output in the interior, the plan creates demand for land links with Southeast Asia, Russia and the Central Asian republics. Trade with Kazakhstan POWER TRIP: Southeast Asia is served by the posh Eastern & Oriental line (center and right)

grew from \$400,000 in 1992 to \$1.5 billion last year, and a single rail link opened in 1999 "can no longer support all of China's oil needs from the region," says Liu Qingjian, a Central Asia specialist at the Chinese Academy of Social Sciences (CASS) in Bei-

### **COMING SOON, A TRAIN THAT FLIES**

sia is leading the way
in building not just rail
lines but trains themselves. Engineers at the
Railway Technical Research Institute outside
Tokyo have created a train that runs without
an onboard engine and at high speed doesn't
even touch the ground. Called the Superconducting Maglev, the train gets its juice from
huge superconducting magnets that interact
with electromagnets embedded in the track.
These sleek, duck-billed creatures, nestled

deep in what looks like a bobsled run, can reach speeds of up to 550km/hr—fast enough to get from Tokyo to Osaka in only 70 minutes. Commercial service is set to begin after 2005.

Under power, the maglev literally flies down the track as magnetic repulsion supports the train. The ride is smooth once the wheels are retracted at 160km/hr, but buffeting wind and blurred side views suggest travel aboard a rocket sled, not a commuter train. Maglevs are 50 percent faster than bullet trains and cost just 20 percent more to build.



"They compete with the speed of airliners and offer better service," says Takaaki Nagaosa, an engineer on the project. Japan is considering a new trunk line linking its three largest cities, a route with the huge daily volume necessary to make the system profitable.

Another place such speed demons make sense is China. With its huge coastal cities, rising middle class and clogged airports, China's eastern seaboard is the world's most important market for next-generation trains. Last year

Beijing asked the institute's parent company, the Gentral Japan Railway, to hid on a maglev line between Beijing and Shanghai. Japan turned down the offer on the ground that its newest train remains in development. "What China needs is a *shinkansen* [bullet train]," says institute director Hitoshi Tsuruga. Instead, Beijing turned to Japan's primary competitor in maglev technology, Germany's ThyssenKrupp and its partner, Siemens; the Chinese ordered a maglev to run the 33km route from central Shanghai to the new airport in Pudong. Not only passengers are in a rush.





NEXT DOOR: China (train, right) wants to help upgrade Cambodia's rickety system (left)

jing. Trade with Southeast Asia has blossomed even faster. But China's target markets—Singapore, Indonesia, Thailand and Malaysia—sit beyond a barrier of socialist states with poor rail networks and have seaports that are clogged almost to capacity. Some neighbors fear China may have ulteri-

or motives for extending its transport network south. But Beijing denies that it is projecting anything but its products. "China's top motivation for improving transportation in Southeast Asia is money," says Han Feng, another CASS expert.

IF ALL THE GRAND PLANS AND FUTURIStic scenarios come to fruition, all of Asia will be connected by rail. Last November the As-

sociation of Southeast Asian Nations settled upon a \$2.5 billion plan that would string together existing railways between Singapore and Kunming, traversing Malaysia, Thailand, Cambodia and Vietnam—with spur lines to Laos and Burma. "They've chosen the route so that no one feels left out," says Romesh Srinivasan, the Malaysian railways expert who mapped out the proposed Trans-Asian Railway.

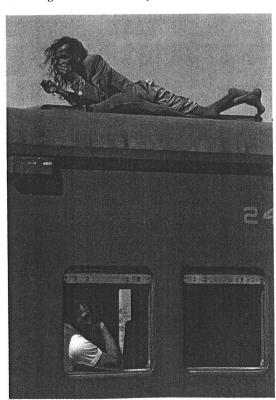
But a vast range of obstacles remains to be conquered. For one thing, existing rail lines and roadbeds are often too decrepit to be of much use in a modern freight network. The ASEAN plan, for example, calls for a 48km link between Poipet and Sisophon, two gritty towns in western Cambodia. In Poipet—a muddy hole on the border with Thailand enlivened

ROOF WITH A VIEW: Taking the air on a Bangladeshi train

only by casinos built to cater to Thai businessmen—a poor Cambodian family shares the former train station with their chickens and ducks. It hasn't been used since Thailand and Cambodia cut their colonial-era rail link in 1962 after a border row over a Buddhist temple. The old rail bed leading eastward was long ago liberated of its gravel, ties and steel rails. Those bridges not bombed during Cambodia's civil war are too creaky to use. "Massive upgrading will be required," says Peter Hodgkinson, a rail-way consultant for ESCAP.

In many of these countries, too, political geography continues to present a potential stumbling block. The ASEAN plan calls for a second phase of construction, which includes an alpine line from the Burmese mountain town of Lashio to China's railway terminus in Yunnan province that could cost nearly \$5 billion. Given Burma's penchant for using forced labor, it's unlikely that much international aid for the project will be forthcoming. Another 450km spur, linking Thailand and Burma, will follow the infamous Death Railway built by the Japanese as part of their planned assault on India during World War II. Although later dismantled, the line, which was completed in 1943 by some 61,000 British, Dutch, Australian and American POWs-and immortalized in the 1957 film "The Bridge on the River Kwai"continues to raise heated emotions among ex-POWs and veterans' groups whenever talk of reviving it comes up.
As part of its "Look East" policy of engage-

As part of its "Look East" policy of engagement with ASEAN, New Delhi is itself contemplating fresh rail routes through Burma to the Southeast Asian market. In February India's railway minister told Parliament his ministry would play "a pivotal role" in the es-



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CLOCKWISE FROM TOP LEFT: PETER CHARLESWORTH....CORRIS SABA, GREG GIRARD....CONTACT PRESS, STEVE MCCURRY....MAGNUM





tablishment of a railway "which would span China, Myanmar [Burma], Bangladesh, India" and extend onward to Europe.

Even more problematic than political barriers are physical ones. Kyrgyzstan, for instance, is hoping to link its rail lines to the ancient market town of Kashgar in far western China. That will take some doing. On a dirt track overlooking a vivid turquoise lake at the foot of the Tien Shan mountains, Kyrgyzstan's deputy transport minister, Kubanichbek Mamayev, points toward the highlands. "The railway!" he booms, gesticulating toward a towering granite ridge. "We just need to dynamite that and build some tunnels and cuttings."

What he's talking about is the 3,752-meter Turugart Pass. According to a basic engineering study completed by Mamayev's ministry, such a rail line would require 28 tunnels and 42 bridges and cost \$2.9 billion. Brittle granite and frequent earthquakes make the crossing doubly dangerous.

"These mountains," says Chingiz Musulaliyev, director of road construction in the area, "have a habit of ruining your plans."

And the greatest problem, as usual, is money. The Asian Development Bank says it is considering a loan to finance the Kyrgyz project by 2004. "It's very simple," says a foreign diplomat in Central Asia. "If they come up with a real business plan with numbers that make sense, then the money will come. If not, it won't."

So far that's proved difficult. A Chinese rail link to Kazakhstan, opened in 1999, is something of a bust. Changing from the narrow Chinese to the wide Russian gauge takes 40 minutes a wagon, or about a day to convert an average-size freight train, so the traffic from China remains small. The hype about a grand new railway linking Europe and Asia obscures another important fact: a Eurasian railway bypassing Russia could very easily be made feasible by refurbishing existing branch lines to take heavy traffic. They run from Urumqi in China to Alma Ata, Kazakhstan, to Tashkent, Uzbekistan, then through Iran to Istanbul.

THE MOST AMBITIOUS RAIL PROJECT IN Asia faces all of these challenges. It sounds like a wild fantasy (perhaps fittingly, since CLICKETY-CLACK: From Kazakhstan (left) to India (right), train travel is once again on the rise

could be finished in 10 years." The projected cost: more than \$25 billion.

However far off, projects like the Japan-Korea tunnel have at least begun appearing on serious agendas. The Russians have toyed with the idea of digging to Sakhalin Island and onward to Japan. At a recent conference in Hong Kong, Japanese transportation expert Norio Yamamoto gave a presentation that included a tunnel project even more ambitious than Mochida's. Entitled "Railway Across the Roof of the World," it showed a link between Siberia

### China lays between 600km and

1,000km of new track every year, a construction rate faster than America's at the height of its rail boom

> the Rev. Sun Myung Moon is one of the backers): to dig a tunnel between Japan and Korea. The plan calls for three undersea tunnels linked by two small islands. The final leg would be both the longest (more than 70km) and the deepest (140 meters) ever attempted. In the 1980s a major Japanese construction firm proposed spanning the gap with a submarine bridge suspended above the ocean floor with towers and cables. Yutaka Mochida, renowned as the world's preeminent tunnel digger, suggests carving a reinforced tunnel underneath the ocean bed. "If we had 10,000 workers," he says, "it

and Alaska via a 100km tunnel under the Bering Strait.

"Whenever an idea is first presented, people say, 'Oh, you're crazy, that's impossible.' But once the idea starts to materialize you get enthusiasts," says Viktor Razbegin, the bearlike director of Russia's Interdepartmental Center for Integrated Regional Transport Projects. This train is just starting to roll.

With HIDEKO TAKAYAMA and KAY ITOI in Tokyo, B. J. LEE in Seoul, OWEN MATTHEWS in Bishkek, KEVIN PLATT in Beijing, EVE CONANT in Moscow, SUDIP MAZUMDAR in New Delhi, JOHN HAIL in Poipet and KEN STIER in Kuala Lumpur

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#### Newsweek SPECIALEDITION 2001/7/11 翻訳

#### オリエント急行

・・・・(中略) アジアにおいて最も野心的鉄道プロジェクトが課題に直面している。 日本と韓国の間にトンネルを掘るというまるで狂気じみた幻想(というのは後援 者の一人が文鮮明氏であるからだが)であるその計画は、3つの海底トンネルを 2つの小さな島で連結するものである。全行程中の最後の区間は長さにおいて (70Km以上)、深さにおいても(140m)とかつてない規模になる。

1980年にある大手建設会社は海底の橋の隔たり部分を海面上の塔やケーブルで吊るし両技師をつなぐことを提案した。世界的に秀でた非常に名高いトンネル掘削者である持田豊氏は、海底下に補強したトンネルを掘削してゆくことを提唱している。もし1,0,000人の働き手があれば10年で終るであろうし、またかかる費用は25兆円以上になると話している。

ところで日韓トンネルのようなプロジェクトがまじめな議事事項として取り上げられる日もそう遠くないかもしれない。ロシア人はサハリンを日本につなげるというアイデアを本気では考えなかった。最近の香港における会議で日本人の交通専門家の山本のりお氏は持田氏以上にトンネルプロジェクトを含めた提案を野心的に行なった。"世界の屋根を横切る鉄道"と題された提案は、ベーリング海峡下を 100Km にも及ぶトンネルでシベリアとアラスカを連結するという内容でした。

「あるプロジェクトが最初に紹介されると、人々は『あなたは狂気じみている。 それは不可能だよと口々に言った』。しかし一度そのプロジェクトが計画的にな ると人々は熱心になる」とロシアのビクター ラッビキン氏は語っている。その 列車は今走り始めた。