

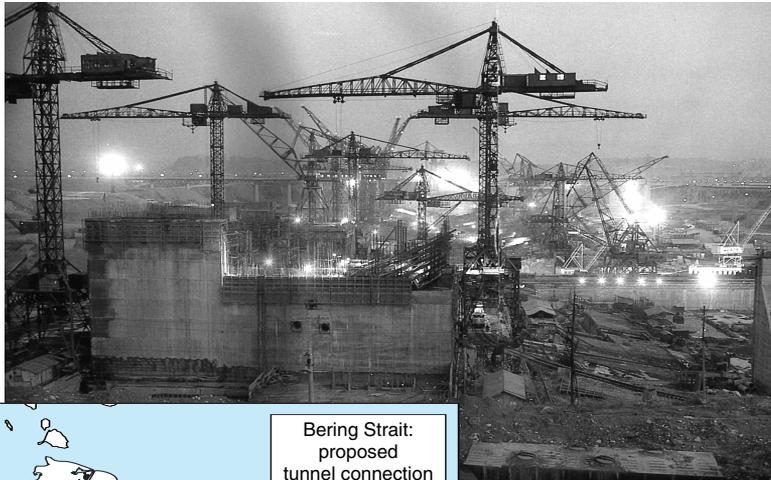
The Eurasian Land-Bridge: The Most Important Strategic Question Of Today

by Helga Zepp LaRouche

No matter what the media say or don't say, the European/Eurasian Land-Bridge is the most important strategic question of today. *The success of the economic integration of the Eurasian continent, on a high-level technological basis, will determine the fate of mankind.* This is not a question far ahead in the distant future; but, considering the different strategic parameters, the question of whether the Clinton administration takes a positive attitude to make the Eurasian Land-Bridge a foreign-policy strategic interest of the United States, to support the success of the Land-Bridge, or remains indifferent, passive, or worse, will indeed determine whether mankind plunges into an incredible catastrophe—of which the developments in Africa give us a small foretaste—or whether instead, we stand on

Construction of a new railway bridge on the Eurasian Land-Bridge rail line in China.





Construction of the Gezhou Dam in China.



FIGURE 1. The Eurasian Land-Bridge, main routes and selected secondary routes.

the threshold of the biggest economic miracle in world history.

These alternatives are immediately before us, and the reason this *is* the most important question, is fairly obvious. If you look at the population-density in the world today, you can see very clearly that the largest concentration of the world's population is in China and Southeast and South Asia, with very thinly sprinkled concentrations elsewhere. And this part of the world—South Asia,



Lianyungang Eurasian Land Bridge Working Office

Container port of Lianyungang, at the eastern terminus of the Euro-Asia Continental Bridge.

West Asia, Southeast Asia—is going to be the area of the greatest population growth in the next century.

China currently represents 1.2 billion people. It is presently the most populous nation in the world, and it has had, without any question, the most intense positive economic development of any country on this planet in the last twelve to seventeen years, averaging ten, even twelve percent annual growth.

The fascinating thing right now is that, despite rather hysterical mis-reporting by the international press, the European/Eurasian Land-Bridge, and the economic

This article has been edited from a speech delivered by Schiller Institute founder Helga Zepp LaRouche, to an FDR-PAC policy forum on the Eurasian Land-Bridge, held on Feb. 5, 1997, in Washington, D.C.

The Eurasian Land-Bridge: The End of Oligarchism

The construction of the Eurasian Land-Bridge, as the precondition for the infrastructural and economic integration of the two continents, is key to overcoming the underdevelopment of the so-called Third World, and therefore, implicitly, to the end of oligarchism. It is exactly this potential, which was recognized by the British Empire towards the end of the Nineteenth century, when this integration started to take practical forms. The construction of the Berlin-Baghdad railroad, and the Trans-Siberian Railway from Paris to Vladivostok, were the concrete expression of a policy which was pursued by the French Foreign Minister Gabriel Hanotaux, German industrialist circles around Siemens, as well as the Russian Finance Minister, Count Witte.

The British Empire saw its domination of the seas threatened through the construction of the Land-Bridge, and answered with the geopolitical theories of Milner and Mackinder: Whoever controls the *Eurasian heartland*, would control the world, and with that, the power of *the Atlantic Rim countries* would be broken. Great Britain, and especially Edward VII, Prince of Wales, and later King, reacted with a whole combination of geopolitical destabilizations, to destroy the potential of the Eurasian cooperation. To start, France was maneuvered, through the Fashoda crisis, into, first, capitulation, and, then, the *Entente Cordiale*. Later, Russia, after the Russo-Japanese war, was pulled into the Triple Entente. And, finally, after the Balkan wars of 1912, the chessboard for World War I was prepared, in which the main interest of the British Empire, was to destroy the economic potential of Germany, if possible, forever.

The Versailles Treaty was also completely based on the actions of geopolitics. Germany was supposed to nev-

er recover economically from the draconian reparations payments—at least, not for the entire century—a policy which led not only to the hyperinflation of 1923, but also to the taking of power by the Nazis, which was supported by certain Anglo-American circles, and, ultimately, to World War II. And then, the agreement of Yalta was entirely in the spirit of geopolitics, also: Eurasia was supposed to be divided forever, through the Iron Curtain.

The construction of the Eurasian Land-Bridge, which now has been initiated by China, represents the opportunity to overcome the underdevelopment of Africa and Ibero-America also, through the same land-bridge conception, driving development into the previously non-developed areas of the world.

It is necessary to consider the entire history of the Twentieth century, if one wants to understand the character of the present British anti-China campaign in all of its aspects. Among those, are, on the one hand, the effort of the so-called “Prague Initiative”—Thatcher, Kissinger, Brzezinski, Lord Chalfont, and the Mont Pelerin crowd—to build up China as the new enemy-image after the collapse of the Soviet Union; and, on the other, the sudden epidemic of anti-China books, beginning with Sir Caspar Weinberger’s *The Next War*, up to Samuel Huntington’s *Clash of Civilizations*, and, finally, Bernstein and Munro’s *The Coming Conflict with China*. The effort to pull President Clinton into a “China-gate,” comes from this same design of British geopolitics; as do the efforts of Gerald Segal and the International Institute for Strategic Studies, to promote destabilizations in Tibet; Xinjiang; around the Hong Kong integration; and by pushing Taiwan independence.

It must absolutely be understood, that the entire destiny of mankind in the coming years, and especially in

development of China—and, in a new way, of India, too—has been the most debated topic over the last couple of days at the Davos World Economic Forum.

It is very funny that, for a long time, my husband Lyndon LaRouche was like a lone voice calling in the wilderness, warning of the imminent collapse of the financial system, advocating the Eurasian Land-Bridge, while the international media basically denied *both* realities; not reporting about the true condition of the world financial system; but, equally, absolutely not reporting about the emerging alternative reality, in the form of the

Eurasian Land-Bridge. Now, all of a sudden, at the Davos summit, both realities have popped out, and are on the table. Because, the two issues which were debated there by some of the leading world financial and economic political leaders, were, on the one hand, the imminent financial crash of the speculative bubble (possibly triggered by the crisis in Japan, or other factors)—the systemic crisis of the system as a whole—and, on the other, the Eurasian Land-Bridge. In fact, some people there were completely annoyed by the self-confidence with which the Chinese representative and the Prime

the next century, depends on a positive relationship between the United States and China. Because the collaboration of these two vast nations is crucial, if a successful reorganization of the bankrupt world financial system is to occur. It must also be understood, that the reason that the Western financial system is collapsing, is due to a policy which was based on the wrong axioms of the post-industrial utopia over the past thirty years—and this, in contrast to China's being presently the only country in the world whose economy is prospering.

It is most useful to study the fact that China is presently the only country in the world, which drew out the consequences of its having based its policy, for a while, on wrong axioms—namely, those of the Great Proletarian Cultural Revolution, which lasted from 1966 to 1976. Under the leadership of Deng Xiaoping and the present Chinese government, China consequently corrected those wrong axioms; and therein lies one of the reasons for its present success. If the West would draw similar conclusions, and correct its wrong axioms of the past thirty years also, then it, as well, would have the opportunity to overcome its current problems.

The future of the world will be a positive one, only if the United States, and the West in general, return to the axioms of its 2,500 years of Platonic Christianity, and collaborate with China, which is presently searching to find the best in its 5,000-year history, especially the Confucian and neo-Confucian tradition.

The success of the Eurasian Land-Bridge would mean the end of geopolitical manipulation forever—and that is exactly what is needed.

—HZZL

Minister of India presented the development perspectives of their respective countries.

The Coming Crash

Let me first, give you a taste of what the debate is, especially in Europe, about the imminence of the financial crash, because I don't think that those of you who watched President Clinton's State of the Union address last night, got the full flavor of what this debate is right now.

The director of the Institute for International Economics in Washington, C. Fred Bergsten, did make a speech at the Davos conference, warning of the new dangers to the financial system coming from Japan, triggered by the yen crisis, plus the overall economic situation in Japan, which would pose new threats to the international system. He said there was the danger of a vicious circle, a weakness of the financial system in Japan, combined with a restrictive Japanese monetarist policy, which could lead to a continuous fall of the yen. Panic selling on the stock market could hit Japan, and then banks would have no other choice than to liquidate their foreign assets. This would then have devastating consequences on foreign markets. And then, in addition, you could have new Mexico-style crises in the emerging markets at any moment, most likely in Brazil and Argentina, and that could then trigger a chain reaction all over the world.

His was not the only voice. Simultaneously, you have European conservative financial dailies, like the *Neue Zuercher Zeitung*, which is *the* paper of Swiss banking and conservative circles, on Jan. 24, asking in a big banner headline: "Are the Stock Markets Heading for a New Crash? Comparison of the Present Development with That of 1929 and 1987." In this article, Prof. Gerhard Aschinger, of the University of Freiburg, describes his scenario for the coming crash, which he divides into six phases, leading up to a market crash. He says, that we are presently in the fifth phase, passing into the sixth. The fifth phase is characterized by euphoria and irrational behavior by those people speculating in the market, in terms of mass psychology. Then, in the sixth phase, a panic erupts, and the bubble bursts.

According to Prof. Aschinger, the transition from the fifth to the sixth phase, can be triggered by events and news which are not so important in themselves, but, because they lead to an upset in the expectation of making just a little bit more profit from speculation, mass psychology will then turn into a panic. He says, that the fact that the Dow-Jones has risen by seventy percent from the beginning of 1995 to the end of 1996, can only be compared to the speculative bubble of the 1927-29 period. And he also completely agrees with Lyndon LaRouche, that the longer the bubble continues to grow, the greater will the crash implosion be.

These are not individual voices. Here are some more, to show you that there is currently an entire chorus of people warning about the impending crash—something which, up until recently, only LaRouche and our organization said.

- On Jan. 15, in Frankfurt, the president of the German savings and loan association, Horst Koehler, warned that, overnight, waves of chaotic currency speculation

could erupt.

- On Jan. 19, at a seminar of the Protestant Academy of Tutzing, the former chief economist of the Bavarian Hypo Bank, Volker Hoelterhoff, said that the world financial markets are incredibly endangered.
- The arch-monetarist of Deutsche Bank, Norbert Walter, said that the world financial markets are decoupled completely from the real economy. Especially dangerous are the derivatives, and the breathtaking volume of these derivatives is absolutely frightening.
- On Jan. 20, the *Frankfurter Allgemeine Zeitung* predicted that the stock market hype in New York and in Europe, is nothing but a buying spree predicated on the assumption that the party will soon be over.
- On Jan. 21, in *Le Monde*: “Is the financial world going up in flames?” They have a three-page supplement on the danger of a financial blowout, basically saying that, “During the first nine months of 1996 alone, \$1,195 billion of stocks and bonds were issued.” That is, \$1.1 trillion worth of stocks and bonds were issued; in which context, they quote the U.S. stockbroker Charles Schwab, saying, “How can anyone not tremble when imagining the consequences of the eventual brutal displacement of such masses of capital?”

This gives you the setting, of why there is no way this world will survive, unless we do, very soon, the kind of reorganization LaRouche has proposed; of why we need a new Bretton Woods system; and, of why, after the reorganization of the world financial system, the Eurasian Land-Bridge must be the cornerstone of a global reconstruction of the world economy.

Let me give you, briefly, the history of the emergence of this concept.

LaRouche’s Development Proposals, 1975-1996

In 1975, Lyndon LaRouche gave press conferences in Milan and Bonn, in which he predicted that the present, or then-existing, international monetary system of the I.M.F., would inevitably go bankrupt, and should be replaced by a different credit-creating institution, namely, an International Development Bank (I.D.B.), to facilitate long-term, low-interest credit for capital investment and capital-goods transfer from the industrialized sector to the so-called developing sector, in order to overcome the underdevelopment of Africa, Latin America, and large parts of Asia.

This proposal, by the way, was then adopted by the Non-Aligned Movement in 1976, in their Colombo reso-

lution demanding a Just, New World Economic Order.

Because powerful forces prevented this from being implemented, LaRouche proposed, in 1978, that the then-existing European Monetary System become the cornerstone of such a reorganization of the world economy. In 1982, in the famous “Operation Juárez” proposal, he called for an urgent debt reorganization of the Third World, cancelling most of the debt, and a reorganization of the world banking system, centering on the economic integration of the Latin American continent—something which López Portillo, the President of Mexico at that time, began to implement.

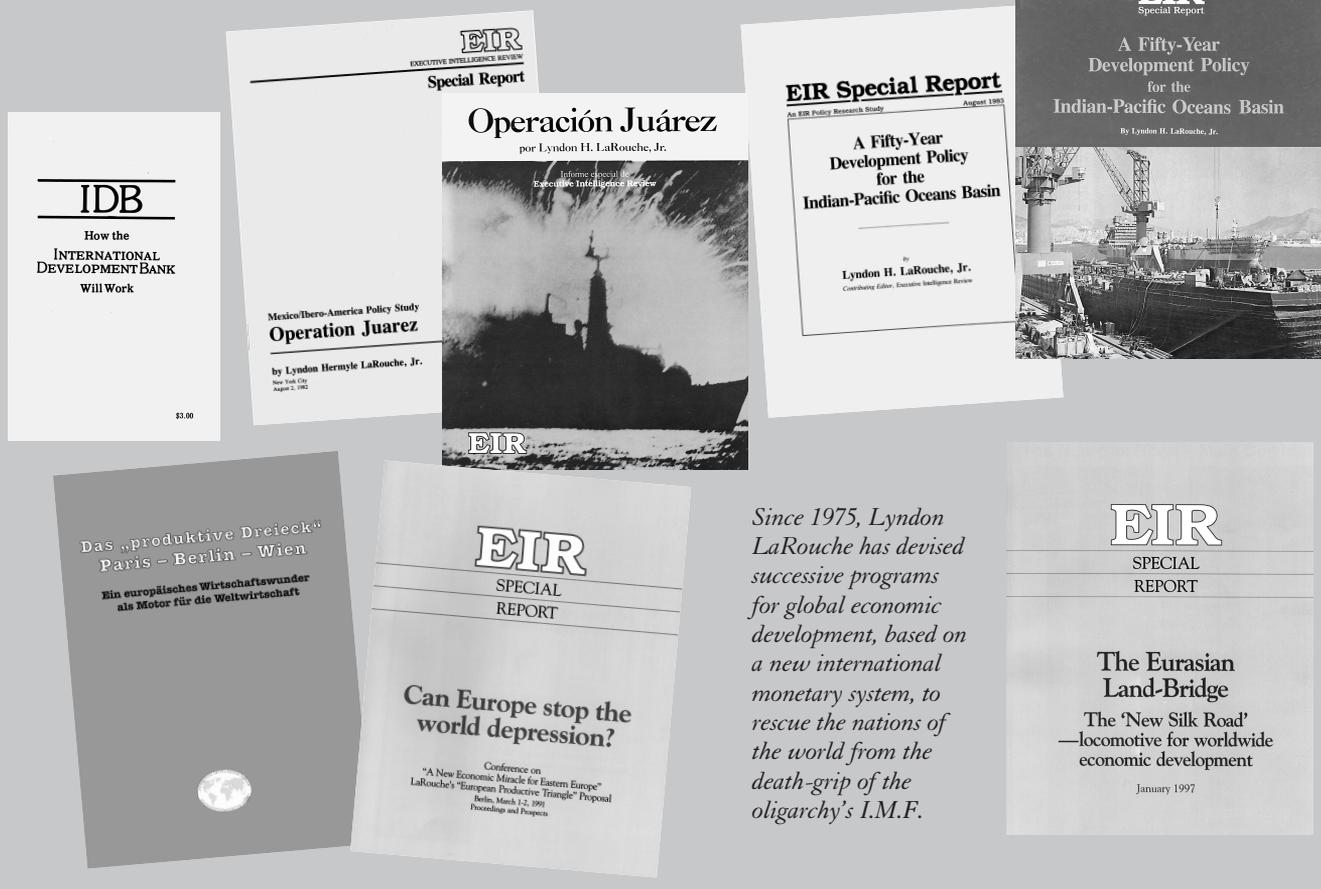
Then, in 1984, LaRouche, with associates, wrote a study for the fifty-year development of the Pacific Basin, which proposed large infrastructure programs for India, for the Mekong Delta, for South China, the Kra Canal, and for other places. If you compare the present policies of the Chinese government, and reflect on the shift which China has made away from the policies of the Cultural Revolution, you find at least very interesting parallels between these two approaches.

In 1988, LaRouche made the famous proposal for a soon-to-become-real unification of Germany. He was, to my knowledge, the only Western economist and statesman to predict the collapse of the Soviet Union more than a year before it happened. He was *the only one* who predicted the unification of Germany, at a point when all German politicians called the unification of Germany the “lie of the century,” they said people should forget about it, and so forth. But LaRouche said, “Let’s take a unified Germany, and use Western technologies to develop Poland, and make that the model for how you can transform the economies of the Warsaw Pact with Western means, into a modern economy.”

Then, in 1989, at a point when—you all remember the pictures on TV—the Berlin Wall came down at the beginning of November, people were happy. There was an incredible historical moment. And, I must say, given the fact that I and my friends were on the scene, busily trying to shape history: there was not anyone, not Kohl, certainly not from the U.S. administration, or anywhere else, who had any idea of what to do, of how to capture the historical moment of the fact that the Wall dividing the Eurasian continent would come down for, really, the first time since the Versailles Treaty—except Lyndon LaRouche, who proposed the famous program of the “Productive Triangle.”

The Productive Triangle was the idea of taking the triangular territory between Paris, Berlin, and Vienna, which is about the size of Japan, and which, to the present day, includes the world’s greatest concentration of industrial capacity and skilled labor power (it goes

LaRouche's Proposals for World Development Based on Monetary Reorganization, 1975-1997



through Saxony, Bohemia, parts of the former Czechoslovakia), and combining, for the first time, the industrial centers of France, the Ruhr, Saxony, and Bohemia, into one coherent unit.

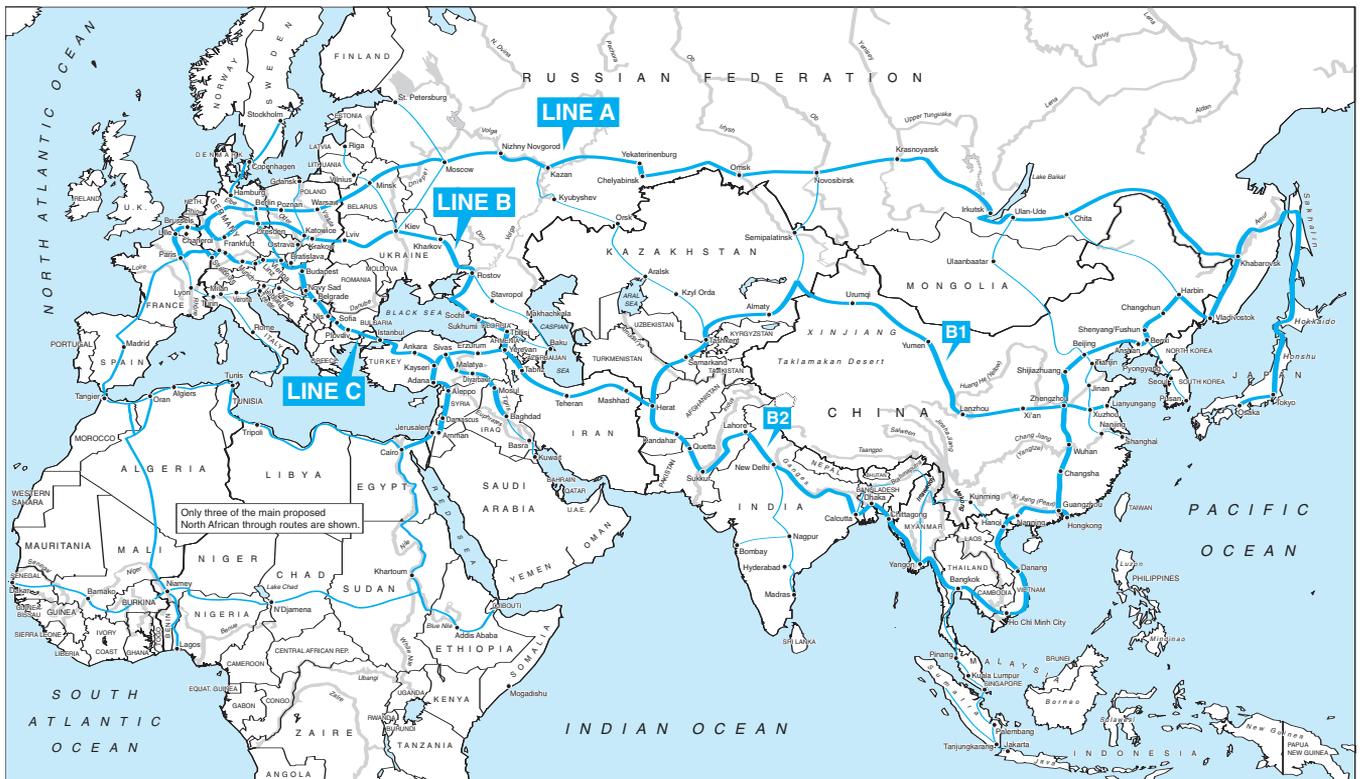
LaRouche proposed that this territory should be upgraded, essentially, through the most modern infrastructure network, including the “maglev” (magnetic levitation) train, the Transrapid, and other investments in cutting-edge technologies, to make it into the most powerful locomotive for the recovery of the world economy.

We put this proposal on the table in November 1989, to the Kohl government, to all the European governments, East and West. We proposed that Eastern Europe should be integrated through development corridors; namely, through the building up of transport lines, one corridor going from Warsaw to Moscow and St. Petersburg, another to Kiev, another to the Balkans and the Black Sea, another to Sicily, bridging into Africa, and another to the Iberian Peninsula, reaching into Africa.

The “Productive Triangle” report was published in all

European languages in 1990. We presented it at many conferences and seminars in Warsaw, Minsk, Moscow, in Kiev, in Poland, in Prague, Bratislava, Vienna, Zagreb, Sarajevo, many other places. What would have been necessary, was an approach whereby the economies of the Warsaw Pact (admittedly not up to world standard) would not have been dismantled, as happened under the I.M.F, but would have been used to build up the infrastructure of Eastern Europe, to provide the absolutely necessary precondition for industrial and agricultural development. Because, one of the inherent flaws of the communist economy, was a complete neglect of infrastructure. The Soviet Union, for example, used to lose forty percent of its agricultural harvest, just owing to a lack of infrastructure. If you remember the famous *Autobahn* in East Germany, it was like a bumpy road; there was the horrible condition of the trains; you remember that lack of infrastructure was one of the key problems.

The idea, was to generate wealth by using up the obsolete technologies of Eastern Europe, to reach the



EIRNS/John Sigerson, Göran Haglund

FIGURE 2. Eurasian rail network plan as first presented by LaRouche's associates in 1992.

condition where, with Western help, one could have a kind of Marshall Plan for the East, using these corridors (about whose functioning I will say more) to drive the economic development of Western Europe into Eastern Europe; to raise the level of the republics of the former Soviet Union, and fulfill their aspirations to join the First World, which is what the people in Ukraine, in Poland, in Lithuania, and in Russia, wanted. They wanted to be part of the advanced West; you all remember this.

Well, we know that history took a different turn. The key banker in Germany who was thinking a little bit in the direction that we were, Alfred Herrhausen of Deutsche Bank, was assassinated. Just recently, Deutschlandfunk, the official German radio, has pointed to certain Anglo-American financial interests as being behind the murder, rather than the Baader-Meinhof gang. (It is also now being argued, that the “third-generation Baader-Meinhof gang” never even existed!) Herrhausen was assassinated for geopolitical reasons, and I’m afraid that everyone of rank in Germany knows the details and reasons for this.

So, Germany, rather than going in the direction we proposed, and taking Europe’s historic opportunity, capitulated to the British campaign of Margaret Thatcher, George Bush, and François Mitterrand (but especially, the British); namely, that if Germany did that, it would become the “Fourth Reich.” So Kohl, rather than taking

the historic opportunity, capitulated, and today we are witnessing a complete collapse of Western Europe, with the end of the Kohl era visible in the very immediate period.

But we, however, continued to organize for the realization of this program.

In 1992, we presented a proposal for a Eurasian infrastructure alliance, because, at that point, the Soviet Union had collapsed. We proposed to combine the Productive Triangle, situated in Western Europe, through infrastructure lines, all the way to China, with Line A being the northern route, the Vladivostok Trans-Siberian Railroad, Line B going through Ukraine, Kazakhstan, China, and Line C from Turkey, Iran, Kazakhstan, China. [SEE Figure 2]

So, we proposed to integrate the Eurasian continent into one unit. And, again, we held many conferences about this, in Moscow and in other places. And, especially because China at that point was still involved in a very dangerous mixture—on the one hand, a state-planned economy, but, on the other, it was also being absorbed into the speculative bubble—we, fortunately, put out many warnings against “financial AIDS” (that is, speculation in the economy), warnings which were published widely in China.

And so, by 1993, the Chinese government consciously turned away from the bubble economy, put more empha-

sis on a dirigist policy, and there was a clear revival of the famous policy of the founder of modern China, Dr. Sun Yat-sen, who, in the 1920's, had written a beautiful document, called the "International Development of China." Figure 3 shows a map he developed, which includes a very elaborated system of integrated railways, water projects, and other infrastructure programs.

Dr. Sun at that point proposed a 100,000-kilometer rail system, one million kilometers of new roads, large canal projects, and projects for the control of the Yangtze and Yellow rivers, the construction of many new cities, all of which are on this map.

Then, in 1993, Jacques Delors, of the European Union, put out his famous Delors White Book, which included practically all the original Productive Triangle transport lines (minus the railway from Munich to Zagreb, because they assumed that the Balkans war would continue for a long time). But, Delors' White Book was completely ignored, and is now hidden somewhere in Brussels, or I don't know where.

In 1993-94, there were further important changes in the economic policy of the Chinese government, to reduce the bubble, both in the real-estate and other markets. They implemented more dirigistic measures, put more stress on the Eurasian Land-Bridge, and announced that they intended to develop the northeast regions of China, and to improve relations between Chi-

na and Europe, as well as the rest of Asia.

In May 1994, the Vice Minister of the State Commission on Science and Technology, Hui Yongzhen, gave an exclusive interview to *Executive Intelligence Review (EIR)*, in which he said that the Eurasian Land-Bridge would be the central feature of China's international and economic foreign policy.

In August of 1994, representatives of *EIR* participated in a conference on cooperation for the development of the Eurasian Land-Bridge, held in Lanzhou. And, in May 1996, I myself, together with a delegation from the Schiller Institute, participated as a speaker at the Beijing conference, which was entitled "The Development of the Economic Regions Along the Eurasian Land-Bridge."

This May 1996 conference was a watershed, because the Chinese government there announced their strategic, long-term perspective for China up through the year 2010, which has now already been written into government legislation. And, they have no less a goal, than to bring the entirety of China up to the level of the rest of the world, as quickly as possible.

Different spokesmen, whose speeches you can read in the Special Report published by *EIR*,* announced that a new era of mankind had started, namely, the Land-Bridge era, where, for the first time in human history, there would no longer be regions of the world which would be disadvantaged because of their geographical

positions; but, because of the Land-Bridge conception, development could be brought into all areas of the globe. And the land-locked areas, especially, would participate in the same kind of advantages which, previously, only maritime cultures, or civilizations based upon rivers, had.

The most important thing was, that this conference, in which I believe thirty-four nations participated, expressed an incred-

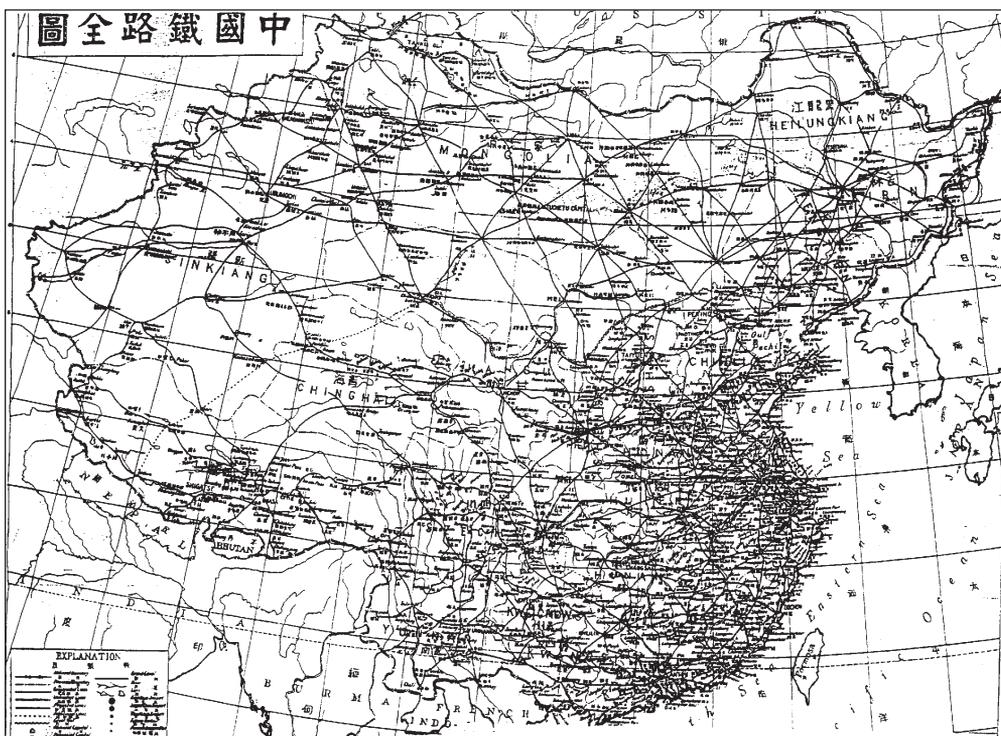


FIGURE 3. Sun Yat-sen's great railway plan.

* *The Eurasian Land-Bridge: The "New Silk Road"—locomotive for worldwide economic development*, EIR Special Report, January 1997, by Dr. Jonathan Tennenbaum et al. (Washington, D.C.: Executive Intelligence Review, 1997).



Three Gorges Project Development Corporation

FIGURE 4. *Artist's representation of the Three Gorges Dam project.*

ible cultural optimism, an optimism which you do not find in the United States, in Europe, and certainly not in Russia. People were just completely filled with the idea that the underdevelopment of mankind was coming to an end. (Although, once again, the international press has not reported this. Except for one or two tiny articles, there has been an absolutely deafening silence about the fact, that the majority of the world had come together to decide to overcome underdevelopment!)

Since that May conference, an incredibly breathtaking development has taken place, namely, a very wide array of economic agreements and deals (again, mostly blacked out by the press). Beginning in January of this year, eight developing countries met in Istanbul, Turkey, forming the so-called D-8, the Development Eight, as a counterweight to the industrialized nations' G-7. This was under the leadership of Prime Minister Erdogan of Turkey, and with the participation of the Foreign Ministers of Iran, Indonesia, Malaysia, Nigeria, Bangladesh, Pakistan, and Egypt, representing, again, about 700 million people. The D-8 announced that they would be open for additional members.

The aim of the D-8, which they announced, was to help its members in their development goals, to function as a partner in cooperation with other organizations, and to be an equal partner with the G-7. This all goes back to a vision of Erdogan's, and Indonesia's B.J. Habibie, the organizer of its "strategic industries" state sector, when both of them studied as young students at the University of Aachen in Germany, where they planned this. (I think this will make you optimistic: Sometimes you have a

good plan, and it takes thirty or forty years, until you are in a position to realize it.)

So, Erdogan, the moment he became Prime Minister, travelled to Iran, Pakistan, and Malaysia. And, in Teheran, he signed an agreement: large pipeline agreements between Iran and Turkey which, for twenty-three years, is supposed to deliver natural gas from Turkmenistan and Iran, to Turkey and beyond. They also agreed on completing the missing railway link between Tabriz and Bonn, and they have planned the founding of this organization, the D-8, for June of this year.

China's Vast Infrastructure Projects

Let me give you a couple of the elements of what is going on in China, why it is currently the world's fastest-developing country, so you will get the sense that, while, on the one hand, we are witnessing the collapse of the financial system, rising unemployment in Europe, collapse of economies, there is, meanwhile, a completely different process underway, where economic development is taking place—a process which actually represents hope for mankind as a whole.

China is presently involved in absolutely gigantic infrastructure projects. These include:

- They want to increase their railroad network, by the year 2000, by 11,000 km, and by 2010, it should be almost doubled, to 90,000 km.
- They want to have completed the first 300 km of a high-speed railway between Beijing and Shanghai,

also by the year 2000.

- They want to increase the road network by 12,000 km.
- They want to build fourteen large subway systems in the next five to ten years; one hundred airports; one hundred ports.
- In the next twenty to thirty years, they want to build two hundred cities with a million or more inhabitants each, because they expect a population increase of 200 million people, and they want to supply adequate housing.
- Gigantic hydroelectric plants.
- Large-scale canal and irrigation projects, to divert water from the water-rich south to the dry north.
- Four nuclear power units come on line in the next years, and many more are planned, and the first High Temperature Reactor (HTR), is under construction.

Then, there are two so-called “Projects of the Century.” One is the famous Three Gorges Dam project. Figure 4 shows an artist’s painting of what it could look like when it’s finished. The major aim of this project, is the taming of the Yangtze River, and also, using the reservoir water gained, for energy and irrigation.

And, the second “Project of the Century,” is the new Eurasian rail development, linking the Chinese coastal area, through their enormous interior regions, to Europe.

There are a whole array of ambitious projects along the Yangtze River, comprising this Yangtze River development project. There are also projects for the Pearl River delta in the southeast; for the region along the Bohai Bay in the northeast, including the Beijing and Tientsin region; and then, the development corridor along the Eurasian rail line, and the modern Silk Road.

But, of all of these projects, the most spectacular is the Three Gorges Dam on the Yangtze River. [SEE Figure 5]

The construction

of this began in 1994, going back to the idea of Dr. Sun Yat-sen. This is a typical example of the hypocrisy of the environmentalists and the World Bank in the West, incidentally, who have loudly denounced this project, claiming that it will hurt the environment, and so forth. Let’s not forget, that in the last flood disaster in this area alone, 33 million hectares of farmland were flooded, 1,000 people died, 800,000 houses were destroyed, and 2.8 million homes were damaged. And that was already after the Chinese government had taken measures to limit the damage; because, in previous centuries, there were many flood catastrophes in which tens, or even hundreds of thousands of people died.

Now, this dam is supposed to be completed in the year 2010, and then the danger of these floods will be eliminated. It will also produce 85 terrawatt hours *per* year of hydroelectric power; but, most importantly, it will eliminate the threat to fifteen million people living in this area. It will cost \$30 billion, but, in the long term, it will be incredibly profitable. The hydroelectric power plant, with a maximum capacity of 17,680 MW, will produce thirteen times the amount a standard nuclear power plant produces. It will be the most powerful hydroelectric plant in the world, and it will be a key element in China’s energy grid, at least until nuclear energy is developed.

Part of the Three Gorges Dam project will be a five-level system of locks, which can lift 10,000 GRT’s (gross registered tons), enabling ships to travel upstream as far

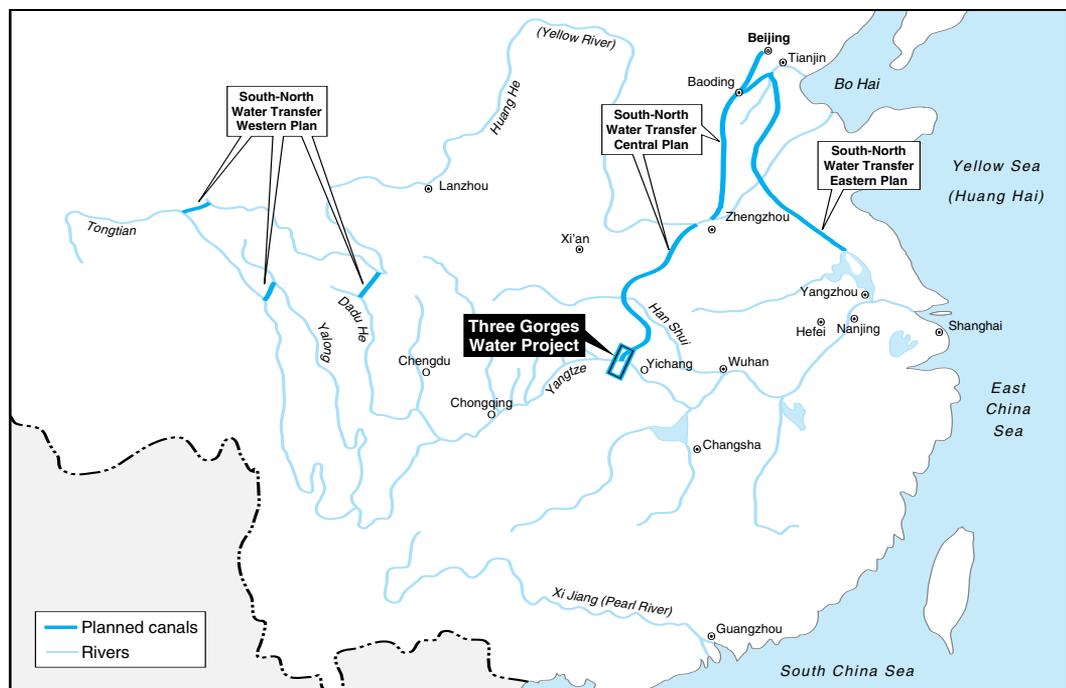


FIGURE 5. *Planned water diversion projects in China.*

EIRNS/John Sigerson, Göran Haglund



FIGURE 6. China railways and Bohai Strait project.

as the city of Chongqing, which will make 700 km of the Yangtze navigable. Then you will have, in China, a river like the Rhine in Europe, and all of you who have ever been in Germany or Holland, have seen what a beautiful thing the Rhine is, which is completely regulated. You have one ship after another, freighters, passing continuously. Every time my husband sees that, he says, "This is infrastructure! That's what it should look like!" So, China is going to have its own Rhine very soon.

Through the dam, the volume of freight will be increased from, presently, 10 to 15 million tons, and the cost will be reduced by one-third. Naturally, it will also create a gigantic reservoir. Through a canal which is yet to be built, the water will be transported to the north, for irrigation. This will open up a territory in the north larger than Germany, for infrastructure development and agriculture.

In September 1996, an agreement was signed between the U.S. Tennessee Valley Authority (TVA) and the Chinese government, to collaborate in building these dams, power plants, and canal systems; to tame the Han River, which flows into the Yangtze, through this canal system, into the north, and, also, the Li River, to contain flooding there too.

The project to divert water from the Yangtze to the Yellow River, through the modernization of an existing canal, makes use of the fact that the mouths of the rivers are not very far from one another. So, you can put the water of the Yangtze through a canal system, feeding the irrigation system of the north of China. This means that, fairly soon, the Gobi Desert will be a blooming garden.

Through the year 2000, it is also planned to increase, and modernize, and continue the development project at the mouth of the Yangtze, near Shanghai. This will be a \$100-

billion investment program, planning a new port, modern communication from Shanghai to Chongqing, a new airport, an oil refinery, two auto plants, a nuclear plant, increasing the steel production to about 48 million tons—which, by then, will be half of Chinese steel production, improving the roads and railways from Shanghai to the cities on the upper Yangtze, building four new railroads alone, and eight new highway bridges over the Yangtze, as well as the 1,300-km high-speed railway between Beijing and Shanghai. [SEE Figure 6]

The region of the Xi Jiang river delta and Guangzhou (Canton), is also one of these development zones. Everything right now is prepared for the economic integration of Hong Kong.

Probably the largest development project in the world right now, is the famous Bohai project. This is the region at the mouth of the Yellow River, in the northeast of China, and it includes four regions: Shangdong, Shaanxi, Hebei, and Liaoning. It includes Beijing and the port of Tianjin, parts of inner Mongolia, and it will probably be the richest development region of the world in a fairly short period of time.

The Bohai region is the center of Chinese industrial concentration. It contains only twelve percent of China's

territory, but twenty percent of the Chinese population live there, who are responsible for one-fourth of the country's total production. It is the center of Chinese heavy industry, and the machine-tool industry. It represents the second-largest oil and gas revenues of China, the third-largest chemical production, and a gigantic economic potential which sits, basically, in Beijing's backyard. And, it is also an economic zone which joins together China, Japan, North Korea, South Korea, and the Far East of Russia.

In the coming years, seven large ports are planned to be constructed, or enlarged. To better connect this region to the highlands, many roads and railways are planned. Key to the new development, is a bridge over the Bohai Bay, which will connect the two peninsulas of Shangdong and Liaoning. This will be the largest sea-bridge in the world, 57 km long, and it will shorten the travel distance along the coastlines by 2,000 km. It will be an ideal connection of the northern Eurasian Land-Bridge lines (Lines A and B1 in Figure 2), joining these two different routes.

The project will include several additional bridges and one tunnel. It will be completed by the year 2010. Until then, a modern railroad ferry is being used between Dalian, the main port of Liaoning, and Yantai in Shandong.

In the entire Bohai region, in the next fifteen years, 3,600 infrastructure projects will be built, including roads and railroads, heavy and light industry, nuclear plants, new cities, and so forth. The concept underlying these projects, is nothing less than the idea of connecting the developed coastal regions with the undeveloped interior regions and Europe; and of using the development of the coastal area as a driver to overcome the underdevelopment of the interior

regions.

It should be remembered, that the Eurasian Land-Bridge already exists. In 1990, the 4,131-km-long railroad was completed at Alataw Pass between China and Kazakhstan, and it was opened in 1992 for container transport. The last part of the 11,000-km-long line, going from China through Turkmenistan to Europe, was opened in May 1996: the famous segment between Iran and Turkmenistan.

Turning these infrastructure lines into industrial corridors—and I will explain what that means in a second—is already Chinese policy. It is part of the present Five-Year Plan, and their strategic, long-term planning. This includes the port of Lianyungang, which is located between Shanghai and Qingdao, and which currently represents what one could call the “natural end” of the Eurasian Land-Bridge. Other ports will be built there—



FIGURE 7. Far East infrastructure projects and the Tumen development region.

for example, Rizhao; Qingdao will be modernized, as well as Tianjin and Shanghai, Shenzhen, and Guangzhou (Canton).

The idea is to integrate this existing rail line, with an electricity grid, oil and gas pipelines, and the installation of an optical-fiber net, which will begin operating in April of this year, and will be 27,000 km in length, the longest in the world, connecting Frankfurt in Germany to Shanghai, supplying twenty countries along the way.

The idea is, also, to have industrial projects along this line, to process the rich natural resources along the Eurasian Land-Bridge; petrochemical complexes, for example. For the next twenty to thirty years, the Chinese government has planned the construction, mostly along this line, of two hundred new cities, which is a gigantic project.

A very interesting strategic development project is also located in Tumen, the Tumen Economic Zone. This is a region representing an area of 10,000 sq km at the mouth of the Tumen River, including the border region between Russia, China, North Korea, and Vladivostok, which is the end of the Trans-Siberian Railroad, and is a triangle between Vladivostok, Yanji in China, and Chongjin in North Korea. [SEE Figure 7]

The key is a rail connection from Nanjing in North Korea, to Posiet in Russia, over Chinese territory, to the city of Chita, which will shorten the distance to Europe by 1,700 km. A connection is also planned to South Korea, and this is supposed to be a \$30-billion investment program for the next twenty years, with an Economic Zone composed of a system of ports and industrial production, comparable to Rotterdam in Holland. So, it will be a gigantic port, trade, and industrial complex, obviously for the purpose of peaceful collaboration of the countries involved, which will be absolutely crucial.

Development of Southwest and Central Asia

Now, to look at some of the other pieces of the Eurasian Land-Bridge, namely, the southern corridors. The revival of the old Silk Road as a concept was pushed mainly on the impulse of China and Iran. But, it now involves very active participation of Turkey, the Central Asian republics, Russia, Pakistan, and India. Obviously, the whole concept of what this region is all about, is to be changed from an area of continuous instability, geopolitical manipulation, and so forth, into a region of economic cooperation, to the mutual benefit of all those involved.

On May 13, 1996 in Teheran, there was the opening of the 300-km rail line from Mashhad to Sarakhs and

Tedzhen, with the participation of twelve heads of state, fifty nations, and 1,500 delegates. This concluded the missing link of the transcontinental railroad between China, Turkey, and, therefore, Europe, on the southern route. President Rafsanjani of Iran praised this revival of the historic Silk Route as a “symbol of East-West relations,” the bridge for the region and the world. [SEE Figure 8]

Chinese Prime Minister Li Peng, meeting in Beijing with the Iranian Deputy Foreign Minister, spoke of the creation of the “Silk Road for the 21st Century,” and represented there the extremely close collaboration between China and Iran.

In the meantime, a flood of bilateral and multilateral agreements for the region have been concluded. In August of last year, Prime Minister Erbakan travelled to Iran with 102 Turkish businessmen, inaugurating a new era in Turkish-Iranian relations: a \$20 billion natural gas deal, a new pipeline, new rail lines, the integration of the energy grid, and the fostering of many other projects in the region.

Now, one of the reasons why Turkey, despite all its economic problems, has had relatively interesting economic development in the recent period, was the South-eastern Anatolia Project, which is an area of 75,000 km, which includes 22 dams, 19 hydroelectric plants, and irrigation of an area of 1.7 million hectares. This is planned to increase the national income of Turkey by twelve percent, and it should be noted that all of this was done without international financing, and without international help, but by Turkish engineers alone.

China, in the meantime, in the summer of 1996, gave credits of \$270 million to Iran, to help to build the Teheran subway, with Chinese participation, and put many more projects on the table, to which the Foreign Minister of Iran, Ali Akbar Velayati, showed the policy direction of his government, by saying: “We cannot have a peaceful country in a region plagued by instability, and we cannot have a rich country in a region of poverty.”

So, I think that it is extremely important for the United States, to reconsider its policy towards Iran. First of all, there has been a very important shift in Iran, which I can only compare to the change which has occurred in China. China has very consciously turned away from the Cultural Revolution, and decided to go in the opposite direction, of maximum technological progress, and maximum development of the interior regions. In a similar way, Iran has had its own experience with the revolution, with the war with Iraq, and they, like China, are thinking about how can they accommodate their people, their growing population, which will be 100 million by the year 2000, with appropriate living conditions.

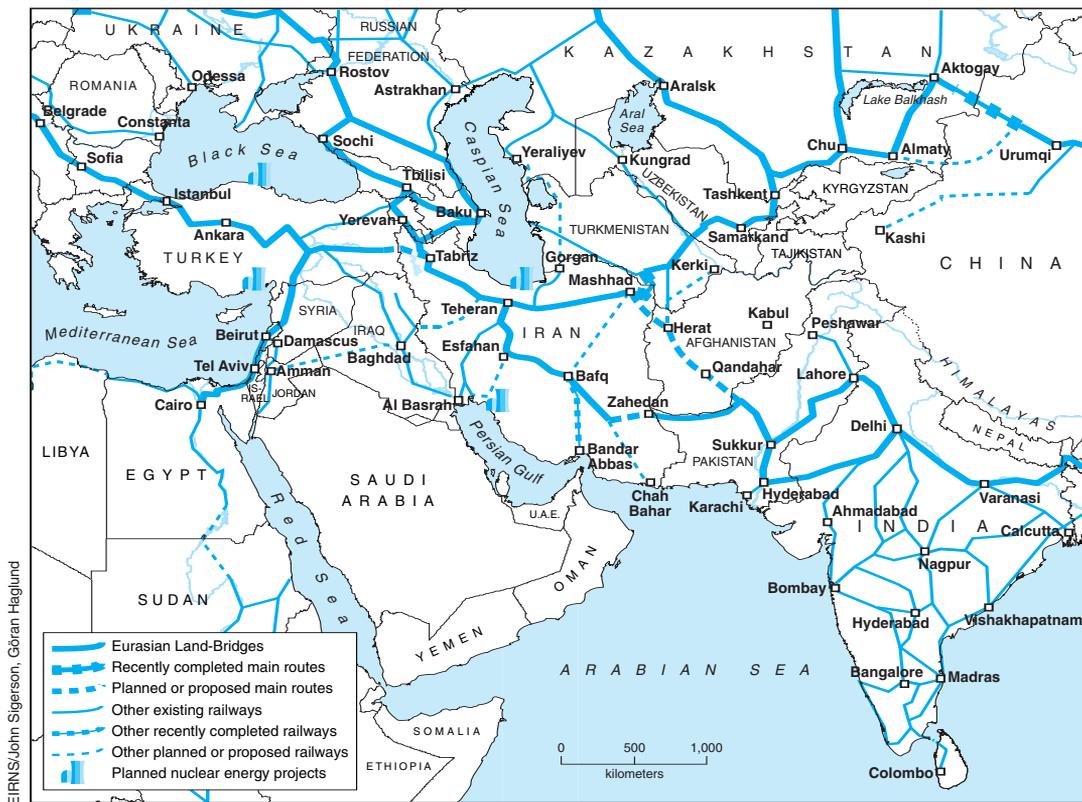


FIGURE 8. Southwest Asia rail routes and nuclear energy projects.

There are massive, giant projects for the common exploitation of the enormous oil and gas resources around the Caspian Sea. And, obviously, there are many projects in which Iran is participating. For example, in Azerbaijan, in the Shakh-Denic consortium, where the idea is to have Iranian natural gas transmitted to Nakhichevan in Armenia, continuing to Georgia and Ukraine. There is also an oil swap with Kazakhstan: to save transport costs, Kazakhstan will export oil to northern Iran, and then Iran will sell oil to be exported to the benefit of Kazakhstan. There will be a pipeline between Iran and Pakistan, part of the Eurasian pipeline network, and it will then be possible to ship oil directly from the Caspian Sea and the Gulf, not only to Europe, Russia, and Ukraine, but also to Pakistan, India, China, and Southeast Asia. So we are looking at a Eurasian *energy* bridge, too.

Caspian Sea oil and gas resources are obviously the center of a lot of international attention these days. But, it should be noted that Iran wants to move from its dependency on export of these natural resources, to favor in-depth industrial development, based on science and technology, to increase the productivity of its labor force.

Thus, there is an important change going on, in which Iran consciously wants to redefine its role, to become the gateway between East and West, and North and South.

There are massive state investments going on: eight major dams built between 1989 and 1994, twenty-five new dams under construction, and seventy in the planning stages. The first plans for the use of water power, for Iran, by the way, were thought out in the United States, in the 1950's, by the U.S. TVA, and reflected Franklin D. Roosevelt's plan to develop the postwar world. People should remember that there was a time when the United States had quite a different policy towards Iran, not least in the period of the Shah.

Iran is also making major investments in its own fertilizer industry. It wants to double its internal electricity production, and has massive investments in the metal industry, machine-tool, shipbuilding, aerospace, steel, and refining and petrochemical industries, which they want to double in the next five years, to surpass those of Saudi Arabia.

For the Central Asian republics, the Silk Road is the only hope for the future. I'm talking about Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, and Kyrgyzstan—an area twice the size of Europe—which are in the very interesting geographical position between China, Russia, India, and Europe.

Most people don't know this, but this is a region with a very rich cultural tradition. It would take too long now to go into that, but one of the greatest thinkers of mankind, Ibn-sina, was born in Bukhara, which is today in Uzbekistan, just to mention one individual.

This region has an enormous wealth of raw materials, but they are relatively poor. The reason for this is, that during the period of the Soviet Union, there was relatively one-sided development: cotton monoculture in Uzbekistan, Turkmenistan, and Tajikistan. The Soviet Union got ninety percent of its cotton from there, and, for this production, they used an enormous amount of water for irrigation, out of the rivers which flood into the Aral Sea. As a consequence, the water level of the

Aral Sea sank dramatically; the sea has shrunk by half, and there is now a great danger of an ecological disaster, with sandstorms and enormous amounts of salt flying around. In fact, there is a danger that the sea may disappear completely.

During the period of the Soviet Union, there was already a plan to direct water from western Siberia to the Aral Sea through a canal, which would then be used, basically, for irrigation of this entire region. This would require large pumping stations, where the water would be pumped over the division between western Siberia and the Aral Sea basin, and from there, it would flow by gravity, all the way to the southern end of the canal, feeding a large reservoir. This canal could be built in fifteen years, and would cost \$18 billion. Gorbachov, by the way, was the one who abandoned that project.

Currently, this region is gripped by a rather severe economic crisis. All sorts of multinationals are stepping on one another's toes in a raw materials grab. There is a danger of a repetition of the old British "Great Game" in the region, and it is very clear that only a crash program of infrastructure development of the European/Eurasian Land-Bridge, will make it possible to solve its problems.

The main rail line of the Eurasian Land-Bridge goes from China to Kazakhstan, over the Alatau Pass between Aktogay and the Kazakh border town of Druzhba, then along the main corridor through Almaty (the former Alma-Ata), Dzhambul, to Tashkent, at which point it divides. One route goes to the northwest, to Arabakh and Orenburg, Kubichev, Moscow, and Europe, and the second route diverges there in Tashkent, to Samarkand, Bukhara, Tashkent, Mashhad (in Iran), Turkey, and Europe.

It is this second route, this southern route, which is actually the old Silk Road.

Now, these rail lines are planned and, in part, completed, but obviously they must be fully built up, to become infrastructure development corridors. The richness of the raw materials in this region is an advantage, but they must be used to overcome the dependency on these raw materials. And, therefore, these corridors must be fully developed, not just as transport lines, but as functioning agricultural and industrial production complexes, which is not impossible, because, for example, in Kazakhstan, you have the advantage of a very qualified labor force from the old military-industrial complex of the Soviet Union.

On Feb. 4 of this year, *Le Figaro* had an article titled "Caucasian Participation in the Eurasian Land-Bridge: Countries of the Caucasus Decided To Reopen Old Silk Road." The article quoted people from the region, saying that now, after the collapse of the Soviet Union, they

intend to exploit their geographical position. As one representative put it, "God has given us a strategic position, at the crossroads of two great routes. One north-south axis, from the Scandinavian countries and Russia to Iran or Turkey. An east-west axis, from Central Asia into Europe."

Iran is building the connection between Kerman and Zahedan. From Zahedan, the Iranian railroad is already connected to the Pakistani rail network via the border town of Mirjaveh. The last step is the rail connection from India, to Bangladesh, to China, to Southeast Asia.

China recently built an important railway bridge from Ruili, a town in China, to Maoshweli in Myanmar. And, from there, it's supposed to build a 250-km railway to the northwest, to connect to the Rangoon-Mishna line. This will then become the connection to Nanking in South China. It will include the Greater Mekong sub-region. It will connect China, Myanmar (Burma), Thailand, Laos, Cambodia, and Vietnam. [SEE Figure 9]

In a further development, a high-speed railway is planned from Kuala Lumpur to Singapore, and, eventually, a railway all the way down to Jakarta, at which point you will have one railway from Rotterdam to Jakarta, and you will be able to travel by train from Holland to Indonesia, in the very near future. I find this absolutely exciting, because I personally do not like airplanes.

Let me present, very briefly, several of the theoretical aspects which are absolutely critical to making this project function, because the new Silk Road must lead, unquestionably, not only to a recovery of the world economy, but to the greatest economic miracle in history throughout the entire Eurasian continent, reaching out from there to all parts of the world.

What is absolutely key, therefore, is the concept of *development corridors*, which are intended to bring development into those less developed areas. The location of these corridors depends, first, on geographical considerations, but also on principles of physical economy, of which Lyndon LaRouche is the most advanced spokesman and theoretician today. Let me first go to the geographical aspects.

The famous "Silk Road" of old, which linked the ancient civilizations of India, China, the Middle and Near East, Europe, and Africa, was a network of trade routes, connected through cities. These trade routes spread knowledge and culture. It is very interesting that the present distribution of the population along the lines of the old Silk Road, which are large rivers, coastlines, channels, roads, and railroads (even though thousands—to be precise, about 2,200—of years, have passed)—nevertheless, twenty-five percent of the population of Eurasia, and seventy percent of its urban population, is still

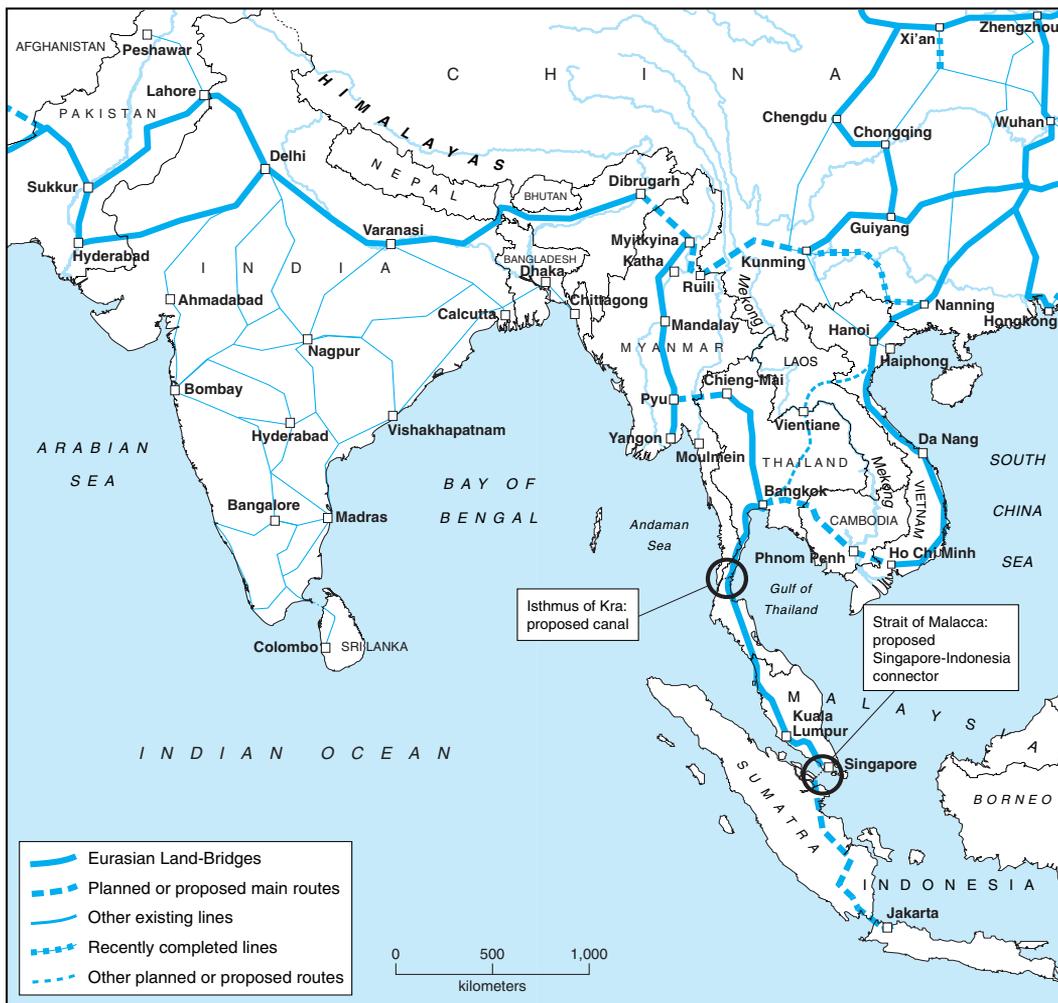


FIGURE 9. *Railways, and Kra Canal, in South Asia.*

EIRNS/John Sigerson, Göran Haglund

living only along these transport corridors. You have a very heavy population density along these corridors.

The development of railroads is key for the development of Eurasia, because it becomes possible for the first time to open up its vast hinterlands. Lyndon LaRouche has pointed to the example of the United States, where, in 1869, the first transcontinental railroad in the world was built. At that time, people got the idea of an intercontinental railway network, to include Africa, Europe, and Asia. But, we all know that the British Empire was completely determined to prevent this from happening, and regarded it as *casus belli*. This was one of the key reasons for World War I and World War II, and decades of the Cold War.

As a result of this interruption in completing what seems to be so naturally in mankind's interest, after a hundred years—namely, a hundred years after the first transcontinental rail line in the United States—there is only *one* continuous rail line in Eurasia. Or rather, there was only one continuous railway in Eurasia—which was the Paris-Vladivostok Trans-Siberian rail line—until last

year, when this other, southern line was completed in May.

At many different places in the other routes, there are segments under construction, a railroad here, a canal there, although, up to the present, many gaps still exist. One can definitely say that the May conclusion of the Mashhad-Sarakhs line, represented a turning point in this development. Now, there are three major rail connections, the northern, the middle, and the southern routes, which connect the 500 million people of Europe, to the four billion people in East Asia and Southeast Asia.

It is very clear, that one has to look at these transport lines as transporting far

more goods in the near future (because of population growth) than what is happening now. So, we are looking at the beginning, only, of a gigantic development. Several nations participating in this are, right now, modernizing the existing lines, or building new lines, and are engaged in the modernization of the track transfer at several of the borders, because the tracks are of different gauges.

There are massive plans in India right now, to improve the northern routes, via the island of Sakhalin, to Japan. There is a plan to build a tunnel under the Bering Strait to the United States. [SEE Figure 10]

High-Technology Infrastructure Development Corridors

If you look at a map of population concentration in the world, you will see that the only areas which have a population-density comparable to that of the Productive Triangle region of Europe, are, first, in China, in the river valleys along the Yellow and Yangtze rivers; then, parts

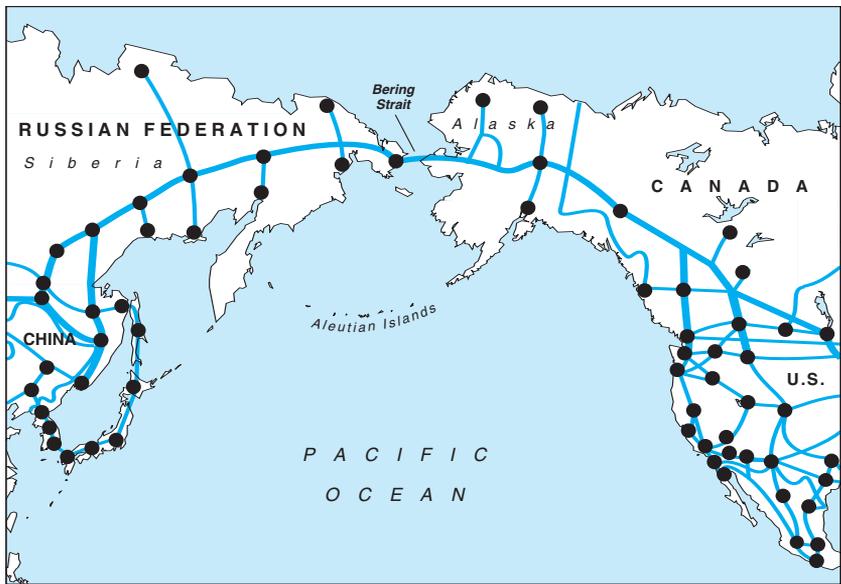
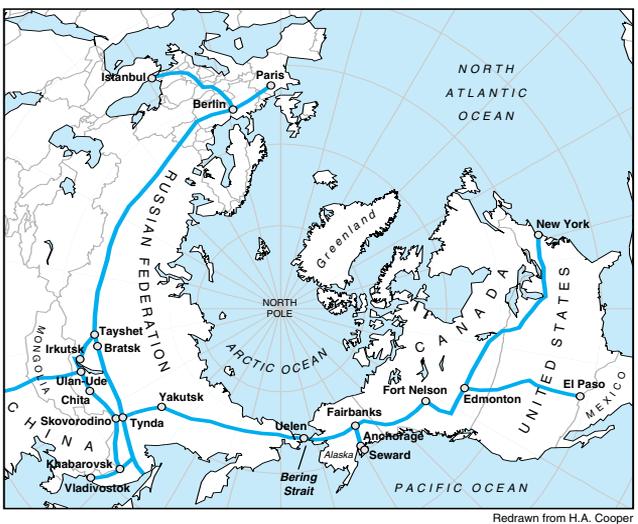


FIGURE 10. **Top:** Plan for tunnel connection between the Bering Strait and Alaska. **Bottom:** Future global rail connections as seen from the North Pole.



of Korea, parts of Japan, Java in Indonesia, parts of India and Bangladesh; the Northeast coast of the United States, and the area around the Great Lakes in the U.S. Midwest.

The reason that this is important, from the standpoint of physical economy, is because—contrary to the idiots of the environmentalist movement and criminals like Lester Brown—low population-density is actually a negative economic factor. What you have to look at, is the cost *per capita* for the specific living standard and level of production. And a large factor in that, is the basic infrastructure cost.

Basic infrastructure cost involves: roads, railroads, public transport, production and distribution of energy, a supply of usable water, canalization, communication, health care, and education. If you think about that, it is clear that the average cost, for example, for one million

people in a well-planned city, is much less than for one million people who are spread over a rural area. Cities represent a much higher efficiency, because, first of all, you have a much shorter distance to overcome for persons, goods, and services to be supplied. You have a higher intensity of use of all the systems—for example, transport, education, and so forth—and, you have a better use of the technologies in urban centers. You have a higher energy-flux density, and a higher power density of machines. Therefore, you can do more useful work, with a relatively small expenditure of labor, materials, and land area *per* unit output.

This parameter, by the way, the energy-flux density, coheres directly with the increase of population-density. In other words, the more people you have, the higher the density of the production process must be. Therefore, advances in technology always lead to an increase in the potential population-density. Conversely, an increased concentration in population-density, stimulates the progress of technology. This is not only true for cities, but also for populations along rivers, trade routes, and so forth.

Compare the relative energy efficiency of the United States, France, and Japan, in the time before the crisis erupted, let's say, 1980; they had a roughly comparable standard of living, health services, and industrial activity. Japan required the *least* expenditure of energy *per capita*, but they had the highest density of energy use *per* square kilometer. So, there is very clearly an advantage of greater density.

The typical infrastructure corridor along these transport lines, should be imagined as follows. You have a corridor approximately 100 kilometers wide, which includes a rail line, a high-capacity electric power line, oil and gas pipelines, water supply lines, fiber-optics communications lines, and so forth. [SEE Figure 11]

The most essential preconditions for *any* industrial, agricultural, and urban construction, are these infrastructural arteries, which, once built, can then branch out, and eventually cover the entire territory. You must start development from these arteries, and then branch out into the less developed areas.

Along these arteries, you also want to have new cities

(Which, parenthetically, must be built beautifully, not like Houston! There are very many beautiful architectural models in the ancient cultures of Eurasia, and people should use the fact that, nowadays, it's so much cheaper to build, to not neglect beauty. Just think about the beautiful cities of China, of Korea, of Thailand, and other places, and there are many ideas for how these places can be built beautifully.)

The infrastructure corridor model is important, because, if you build a rail line merely to connect location A to location B over a long distance, then that railway is nothing but a cost factor. But, if you have this kind of an approach, then, through the dense agricultural and industrial activity, the line from A to B becomes an economic multiplier, and the larger the density of the economic activity along the route, the more efficient the investment into the initial railway becomes. What you want to create is both large markets, and large suppliers of goods, so that the connection from A to B has the role of a gigantic production line.

Clearly, this approach is the unique way to overcome the disadvantages of unfavorable natural conditions, let's say of Arctic Siberia, the deserts of Central Asia, and all landlocked areas in principle. And, it is also clear, therefore, that the continuous development of a corridor is more advantageous than, let's say, islands of economic activity which have no immediate connection.

Let me review very briefly some of the absolutely necessary technologies needed to make the Eurasian Land-Bridge succeed. The need exists to use cutting-edge technologies in these corridors. Once you use them in the corridors, they will be distributed to the participating nations of the Land-Bridge. In this way, the corridors become the transmission belts for scientific and technological progress in all of Eurasia.

If the Eurasian Land-Bridge is supposed to become the locomotive for the world economy, it is important to apply the principle of physical economy in selecting the most important technologies for transport, energy, water, and communication.

Since the average parameters of performance of infrastructure in the Eurasian corridor must surpass those in Japan before the crisis, in all categories—for electricity, heating fuel *per capita* and *per square kilometer*, supply of households, industrial production, agricultural production, water, and so forth, the performance of transport systems in ton-kilometers and value-ton-kilometers *per hour*, *per capita* and *per square kilometer*, communications systems, and health and education systems—therefore, the selection of technologies must be based on the relatively highest density of performance, in terms of the infrastructure performance *per unit* of land area, *per employed worker*, and *per other resources* consumed, by the given infrastructural system.

The higher performance correlates broadly with the energy-flux density or power density of that technology, as measured in watts *per centimeter* of power flow through the crucial work surface of the process involved.

The technological quality of the energy system, therefore, must increase. For example, there must be a growing role of electricity versus thermal power, of high-temperature heat versus low-temperature heat, increasing the speed in passenger transport, and so forth.

The infrastructure

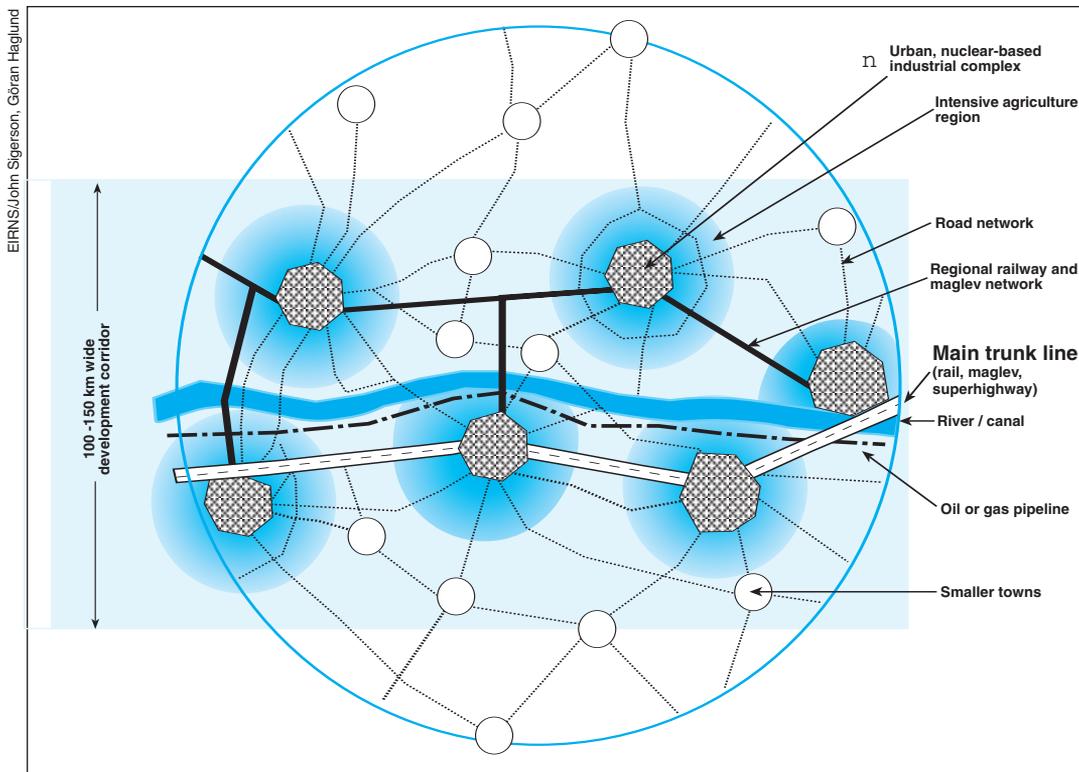


FIGURE 11. Graphic representation of a "development corridor."

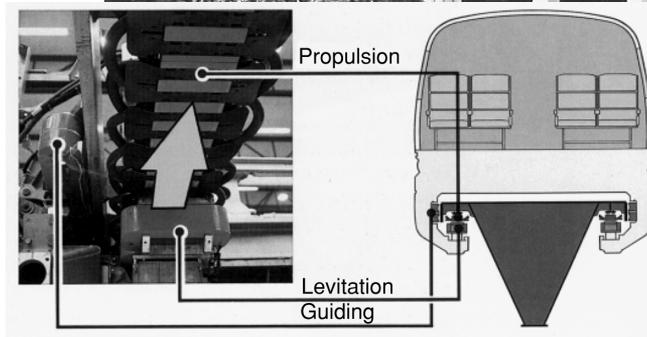
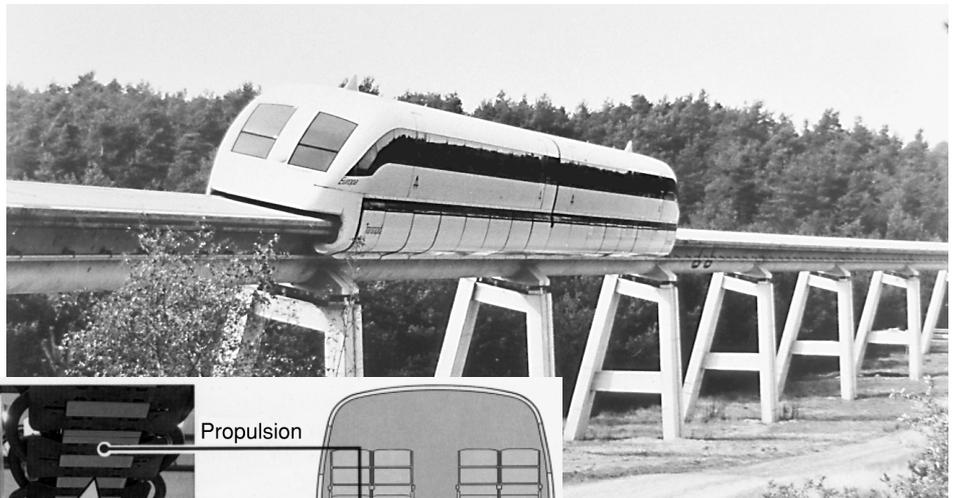
projects must also be designed in advance, to anticipate the introduction of more advanced technologies when the corridor is developed. The integration of all means of transport—water transport, railroads, planes, and trucks—must also be included, including the containerization of freight transfer from one mode to the other. Since there is a dramatic increase in global demand for multi-mode transport projected, it is crucial to anticipate now how to overcome the bottlenecks.

There already exist engineering designs for fully automated freight transfer stations, so-called Combi-terminals. In France, the first generation of “rapid transfer” systems is already in operation, the so-called “Commuter” facility near Paris. The presently conventional, state-of-the-art system involves the use of portal-cranes, which run 700 meters along tracks parallel to the train tracks. Then, to unload a typical container train of 600 meters in length, carrying 40 containers, such a crane normally requires at least 70 minutes. With the first generation of automated rapid-transfer systems, this can be reduced to 15 minutes or less. For example, in Germany, Krupp is presently developing such a system, called the Fast Freight Transfer Facility.

The Eurasian Land-Bridge must combine all major modes of transport, but the reason that rail transport must play a central role, is because it requires much less energy, and less labor, as well as being less affected by climate and weather, than road or ship transport.

Existing systems are the French TGV, at 300 km *per* hour, and 150 km or more for new high-speed freight lines. Although the existing Eurasian Land-Bridge is based on conventional railroad technology, it is absolutely crucial that magnetically levitated (maglev) ground transport play a decisive role in the future. One existing model is the German Transrapid, which can go 450-500 km/hr, and, hopefully, will be built by the year 2005 between Hamburg and Berlin, if present resistance can be overcome, and will then eventually extend to a Europe-wide network.

With this Transrapid, you could go from Paris to Beijing in six or seven hours, so that you could easily leave in



Development corridor transportation systems will incorporate magnetic levitation (maglev) technology. Above: Transrapid prototype travels at 450-500 km/hr. Left: Maglev eliminates mechanical contact between vehicle and track.

the morning, and in a leisurely way do your work on your computer terminal, work on the telephone, and by the afternoon, you would be in Beijing, well-rested, secure, without air turbulence, and so forth. Japan is only slightly behind Germany, building a different system, and, also, China is working on one. There is a very interesting model presently being worked on by some Ukrainian scientists.

This kind of travel is revolutionary. It eliminates vibration and friction, because it is not connected to the ground. This technology will be very efficient in all of Eurasia. It will replace short- and medium-distance flights, because it is completely ridiculous, to go from New York to Washington, by spending two hours getting to the airport, one hour in the air, and two hours getting from the airport. With this, you will have one hour's travel, and be where you want to be.

The total investment for the maglev system, of the type of the Transrapid, of a total length of 100,000 km, will be approximately \$1 trillion. That sounds like a lot of money; but, it's only \$220 *per capita* of the Eurasian population, in a span of ten to fifteen years. And, for about ten years, it requires an investment of only one percent of the GNP of the respective countries. And, think what a change this will mean.

Transport by sea, which is still the most efficient method for bulk goods and goods which are not dependent on timely delivery—namely, raw materials, semi-finished products, fuels, grains, heavy machinery, and so forth—will also expand many times as the world econo-

my begins to grow again. We will therefore need a massive expansion of harbor facilities, and major improvements of inland waterways, and new inland shipping canals. Many breakthroughs have been made in the recent period—for example, in high-speed, gas turbine-powered catamarans, which are currently in use between Sweden and Denmark, and which can travel at approximately twice the speed of normal ferries. These can be used all over the world; Indonesia, especially, is a place where natural “water roads” offer themselves for this technology.

Contrary, again, to what the environmentalist movement says, the world economy will be much more energy-intensive in the future. There will be an enormous energy requirement for the economic exploitation of mineral resources, for example, where technologies such as plasma processing will be used. And we will need a lot of water projects in the large-scale desert regions in the Near and Middle East, in North Africa, Central Asia, and in China, for pumping, reprocessing, and desalination of water.

We will have to provide large amounts of cheap energy, of which electricity today is the highest quality of energy, because you can easily distribute it on a large scale. And, we will also require large amounts of industrial process heat for buildings and industry, fuels for internal combustion engines, and so forth.

Despite the enormous quantity of fossil fuels in Eurasia, the technology which has the highest energy-flux

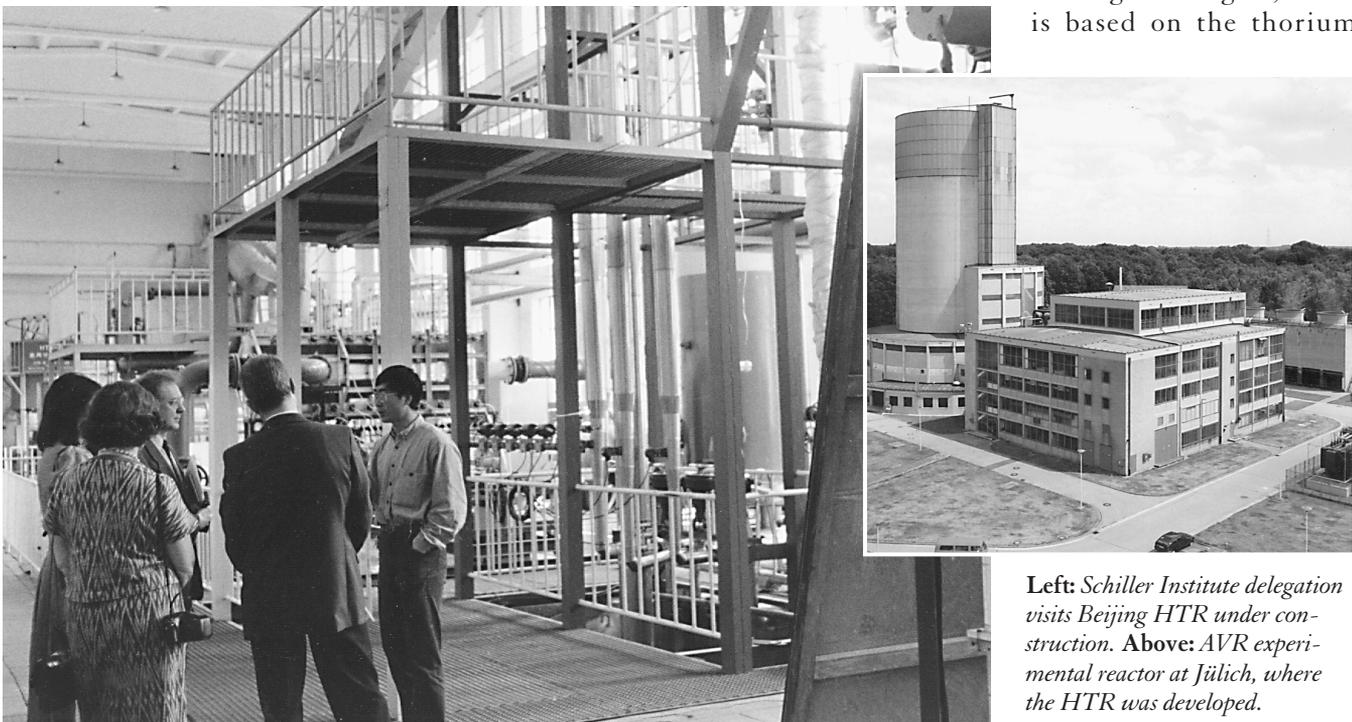
density is, in the future, nuclear fission, and, hopefully very soon, nuclear fusion. There are, right now, extensive nuclear power programs in Japan, South Korea and North Korea, China, Vietnam, Indonesia, Iran, Turkey, and India. Presently, the light-water reactor of approximately 1,000 MW, is in use in many countries. France, for example, gets eighty percent of its electricity nationally from this reactor type.

But, what we propose, is actually a much more attractive model: the high-temperature reactor (HTR) developed by Professor Schulten of the Jülich Laboratory in Germany. The only currently existing HTR in the world is under construction near Beijing, which we visited in May of last year. A similar reactor is being developed in the United States and Japan. The HTR is much more efficient than the light-water reactor, because, among other things, it also produces process heat for industrial and other uses.

The HTR is inherently safe, because the possibility of a meltdown, or major release of radioactivity, is ruled out by physical mechanisms. So, without complex safety systems or human intervention, this reactor is safe, mainly because of the encapsulization of the nuclear fuel within multiple layers of a special high-temperature ceramic, the so-called “Siamant,” which prevents the release of radioactivity, even under extreme conditions.

The HTR is, therefore, a robust and easy-to-operate reactor, especially safe in densely populated areas, and as a component of the “nuplex” cities which have to be built.

One big advantage is, that it is based on the thorium



Left: Schiller Institute delegation visits Beijing HTR under construction. Above: AVR experimental reactor at Jülich, where the HTR was developed.

cycle, of which India has large reserves.

I could say many more things, but I just wanted to give you a glimpse of the gigantic construction activity underway or planned, on the one hand, and, on the other, the physical principles this effort *has to have*. I invite you to study in depth the *EIR* Land-Bridge study which we have produced.

Significance for Russia and Germany

Let me conclude with two final aspects briefly, just to give you an idea.

You probably realize that I did not mention Russia, although Russia is, obviously, a crucial centerpiece within the Eurasian Land-Bridge. And, I can assure you that, without doing what Leibniz said three hundred years ago—that is, taking Europe and China, with Russia as a mediation between these two cultures, and bringing the development from both sides—there is no way that we will avoid a terrible catastrophe in Russia.

Right now, as a result of the reform policy, the industrial production of Russia has collapsed in the last five years to twenty percent, on average, of what it was in 1991. General Lebed and others have warned that we are looking at a danger this coming spring, because of a serious supply crisis.

Fortunately, there is currently—this is not represented by Yeltsin, Chernomyrdin, as such—a growing group of scientists and other people in Russia, who are absolutely fascinated by, and who want to integrate Russia into, this Eurasian Land-Bridge. Lyndon LaRouche gave a seminar there in April last year, organized by the famous economist Leonid Abalkin, with the participation of former Prime Minister Pavlov, and with forty prominent Russian economists, about this perspective. The proceedings were just published in Russian, and are circulating widely in government and other circles, along with a document which LaRouche wrote for the Russian Duma.

When Gen. Lebed was in Germany just two weeks ago, he—very surprisingly and very positively—announced the need for Russia to go back to the policies of Count Sergei Witte, which was exactly the same approach as we are proposing now, and to use the German model of machine-tool *Mittelstand*, middle-level industry, to transform Russia.

Clearly, this is very urgent, and no time is to be lost.

As a last point, let me mention the German situation. Those of you who know Germany and love it as I do, are probably crying right now, over what is happening to this beautiful country. Rather than using the historic chance of 1989 to transform the East through technological means, Germany, having been really hoodwinked by the

Anglo-Americans—by Thatcher, by Bush, by Mitterrand—is now collapsing. It is falling apart at a rate which people cannot imagine.

There are at this moment, officially, 4.5 million unemployed. But, if you include hidden unemployment, Germany has well above eight million unemployed. That is a higher percentage of the workforce than in 1932 or 1933, when Hitler came to power, and the country is in a very, very dangerous situation, even though there is no Hitler present today.

Germany has lost, in the last five years, *twenty-five percent* of its industrial employment. This, for Germany, is a catastrophe, because the German economy, even despite the present collapse, is unique. For example, in 1995, Germany's exports were still DM 728 billion; 87% of that was industrial goods, mainly capital goods; 112 billion in exports in machine tools, 11 billion of those machine-tool design; 126 billion in vehicles; 96 billion, chemical products; 96 billion, electrical equipment; 13 billion, precision and mechanical and optical goods; 15 billion, aviation and space vehicles.

The only other country which has a similar situation is Japan. But, they're more focussed on the Far East, whereas Germany has a broader, worldwide distribution. There is no country in the world which is as dependent on the prosperity and stability of other regions in the world, as Germany is.

But, since unification, we have seen in Germany a dramatic collapse of export-oriented jobs: 700,000 jobs were lost in this area alone. So, the situation is absolutely dramatic, and, if Germany is to be saved, the means is obvious: Germany can produce everything which these development corridors need. It is a crime to destroy those industries.

The German government, which is absolutely *mad* to fulfill Maastricht—a conception which was designed by Thatcher and Mitterrand to contain and weaken Germany, to destroy it for geopolitical reasons—is, right now, in the process of turning Germany into a rubblefield.

We are determined to put the Eurasian Land-Bridge on the table as an alternative.

The reason Germany has to play a crucial role, is that Germany not only has this export-dependency, but the reason for that, was that Germany has a very large component of machine-tool production and *Mittelstand*. This is extremely important for all the other economies as well, because, contrary to what the economists of the monetarist school of Adam Smith *et al.* say, the source of a country's wealth is not its natural resources. It's not oil, gas, strategic minerals, and all these other things. And it's not speculation; it's not stocks; it's not a bubble economy.

The *only* source of wealth in an economy, is the cre-

ative reason of the individual. And, if that creative reason is applied, and leads to scientific and technological progress, which, then, is essentially turned into machine tools, then you are applying scientific and technological progress, and making it usable for production. This occurs through the work of the engineer, the scientist. Many of the machine-tool *Mittelstand* industries in Germany, were, up to the present time, headed up by engineers, who had a family firm, with several dozen or several hundred employees. These firms were the engine of technological progress.

Now, Germany also has a way to reverse its present course, because we do have a tradition of *making people creative*, because Germany used to have the best educational system in the world—the famous Humboldt education system—which was the reason why, in the Nineteenth century, Germany was the world's leading nation in developing new technologies and defining new categories of knowledge. All we have to do, is to go back to that educational system, whose central idea was not to teach specific skills, but to develop the character, to develop the character and beauty of the person to become a state citizen.

We propose to return to this, and make Germany a centerpiece. Not to let Germany collapse, but to make it one of the leading motors in the driving of this Eurasian Land-Bridge. We have what people need; why should we collapse, when we can help?

There are two strategic regions, which everyone can

see will blow up, if this is not done. One is the Balkans, Bosnia in particular, where the Eurasian Land-Bridge *must be effected*, to calm down and develop the region. You all have heard that Bulgaria is currently falling apart, there is a terrible hunger catastrophe. The country is just collapsing, with hyperinflation, a complete standstill of the economy. Serbia is exploding, among other things, because of the economic condition. Albania, Kosova—there will be another war for sure, if Bosnia and the Balkans are not part of this, very fast.

And, secondly, I think that if you look at the continent of Africa, it is also clear that, with what is going on in Zaire, Rwanda, Burundi, Sudan, the only way to stop the bloodshed, to stop the collapse, is to build the Eurasian Land-Bridge into Africa as quickly as possible. We propose to connect the Eurasian Land-Bridge fully to the African railway system as a totality. If this is done with the help of China, other countries of Eurasia, Germany, Japan, and with the full backing of the United States, there is no reason why Africa cannot be saved. It is eminently possible.

What is required, therefore, is for the United States to go back, consciously, to the policies of Franklin D. Roosevelt, and to overcome the Depression through a dirigistic program, not only for the United States, but for the world as a whole.

If we do that, then each of us can look into the eyes of today's children, and the many other children to come; if we don't do it, then these children will not survive.

The Eurasian Land-Bridge

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