

A Rail Revolution for the U.S. Economy

by Jeffrey Steinberg

June 1—In his weekly dialogue with the LaRouchePAC Policy Committee May 25, Lyndon LaRouche spelled out the urgent need for the United States to launch a nationwide high-speed rail system, as a means of transforming the U.S. economy and reconstituting a qualified 21st-Century labor force, in the aftermath of two generations of economic collapse and near-total loss of the productive power of labor.

LaRouche invoked the revolution in labor power that was initiated by President Abraham Lincoln, through his promotion of the Transcontinental Railroad, even as the British prepared their Confederate secessionist drive to destroy the Union.

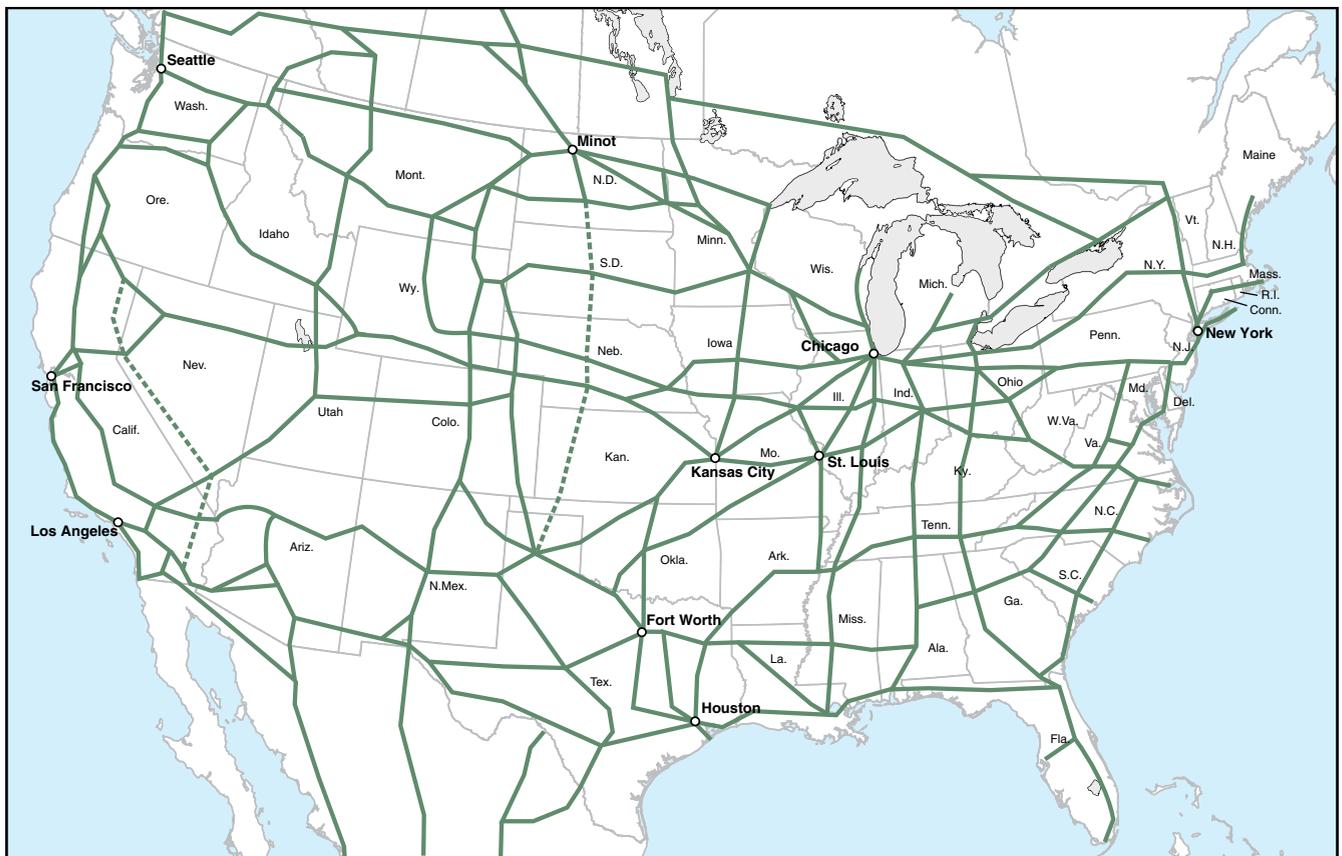
LaRouche's remarks provide a perfect framework for looking back on Lincoln's vision of an invincible continental republic, which was at the heart of his lifetime commitment to the Transcontinental Railroad, and to the advancement of American labor power.

The Rail System Is the Secret

LaRouche told the May 25 session:

The only way that you can [revive the real economy of the United States], is by creating a transportation system which is based on the railroad concept. (Figure 1) You've got to think about,

FIGURE 1
The Proposed 42,000-Mile-Long Network of National Electrified Rail



EIRNS/Alan Yue

A 2005 plan for a 42,000-mile U.S. high-speed, electrified rail system, designed by transportation consultant Hal S. Cooper. The directions of connection, by Alaska Railroad to the Bering Strait and Eurasia, and to Central and South America, are obvious.

how can you produce a productivity factor, among the ranks of the people of the United States? What industry, what particular thing that is feasible?

Now, what China has been doing with rails, for example, is a signal to the United States as to what the United States has to do to recover the economy of the United States.

I mean, you can't say, 'we're going to get you money for this, money for this, money for that'—that doesn't work. Handouts don't work! What you've got to do is, you've got to take a part of the labor force which is not yet capable of doing the job. But you build that labor force, you bring them into function around a cadre group, but it has to be one thing: Transportation. Mass transportation, freight and people. And whereas you start that process, it means that everything that you're doing in terms of innovation, is now going to be a contribution to the economy and the development of the economy of the United States, *and* of the labor force, the productivity of the labor force. And that's what we have to do.

So you start with the Manhattan idea, but you say this is only the core of the thing. Then you go with the rest of the project, and you build an effect. And we're going to get echoes, from South America, Peru, etc., etc. It's already coming. So we will have that. Then we can be allied with forces such as India, Russia, China, and so forth. That's all there.

And we're going to have to have big fights, because the threats in these various parts of the planet are very serious; mass killing, mass death, that's the program. But we have to have a mechanism, which in itself generates growth of the economy of the United States and other nations. Then we use that, in the way where it's supplied, but check on the case where you can get the best and quickest effort; and the building of a high-speed, multiple-function, railroad system, of a modern type, a really modern type. And you build up a whole territory, so that you begin to integrate the areas of the United States. Only rails can do that.

So you have a railroad system, use that as a training system for people.

The Lincoln Revolution

But it's the transportation system, the train system, which is the most efficient, quickest way, to develop the economy, which we did already before, in the 19th Century. We already did that! The rail system is the secret of how you can build the economy of the United States, and rebuild it. It's a new kind of rail system, but the principle is still the same: You're taking people, almost as novices; you're training them, you're putting them to work while you're training them, and you're developing skills among them, by training. . . .

You've got to think about what the condition of the employable population in the United States is today, the potentially employable; and realize that they don't have any skills as such. And what kind of jobs are you going to give them, what kind of development are you going to give them? Well, they don't have a practical job which is a self-paying job. In other words, you get people, you start to train them, you build the process up. You're now doing something, you're increasing the productivity of the national economy. It starts a little slower, at first, but it becomes very rapid, because the technology is well-known. And you've got technology, you've got business that will go to China and so forth, where the railroad system is going on; what's going on in India, and so forth—of nations which are actually involved in building high-speed-rail systems, which are needed.

And you move as fast as you can. So you're not doing something, like bit, bit, bit-by-bit nonsense. You're going in with a clean sweep, to turn brilliance into being. And that's what you do.

It was done before, by us, as in the Civil War period under Lincoln, where it became really—that became the driver which continued to determine the United States, into, actually, the 20th Century. And that's what we need to do. But we need to have a sense of organization, of how we structure the creation of the organization needed to make this effect, and make it very quickly efficient, for the average citizen of the United States.

The best starting point for creating what LaRouche has called for is to revisit the Lincoln revolution.

Lincoln's Land-Bridge: The Transcontinental Campaign

The following is excerpted from a presentation by Jeffrey Steinberg on Feb. 1, 2003, titled, "Lincoln's Railroad and the European Land-Bridge Today," and published in [EIR](#), March 28, 2003.

Abraham Lincoln was born in 1809. He was 20 years old when the first successful test of a locomotive on a railroad was accomplished, in England. And within a few short years of that, by 1832, at the age of 22-23, Lincoln was running for the state legislature in Illinois, on a platform of building a transcontinental railroad.

Lincoln understood that to defeat the power of oligarchism—particularly the British, with their various French and Hapsburg allies—required that the entire American continental republic had to be consolidated. When he campaigned for the state legislature on this idea of a transcontinental railroad, Lincoln had never seen a railroad, never ridden on one. There were a few beginning to be constructed on the East Coast of the United States. But nothing as far out into the western part of the colonized United States as Illinois. Talk about not being stuck in sense-certainty.

Nevertheless, he understood a concept that provided an absolutely unique solution to a grave crisis, which was that the Union was in jeopardy.

After the John Quincy Adams Presidency, 1824-28, we had a real string of losers, starting with Andrew Jackson, then Martin Van Buren, and then, Buchanan and Polk; and really, the condition of the political parties in the United States, by the time that the Republican Party was founded in the early 1850s, was as bad, maybe even worse than the situation right now: total corruption, complete irrelevance. And so Lincoln was the great man of vision of this period. And he understood that the railroad issue was absolutely fundamental to everything.

FIGURE 2
America's Transcontinental Railroads, as Built from the Eastern Rail System After 1865



Source: EIR

In 1862, Lincoln signed the Pacific Railway Act to create a Transcontinental Railroad, with a direct government role through surveying, land grants, and government bond financing. By 1893, a total of five transcontinental railroads were constructed.

Four years later, he was elected to the Illinois legislature, and again, made the issue of railroads a major focus. In fact, what he proposed was a Federal law that would grant Federally owned land to the states, so that the states could sell the land, or use it otherwise, to begin launching major railroad projects. He proposed the creation of quasi-public corporations to build these railroads. And it's a measure of the success of Lincoln's policy—along with many other people—that by 1856, the Illinois Central Railroad was the largest railroad in the world, and one of the largest corporations. And Lincoln made sure that there were regulations and other legislation that made this all possible. This was one of the important test cases of the American System of political economy.

By 1853, this railroad issue had reached the point that, by Act of Congress, a survey was commissioned to figure out the best route for a transcontinental railroad. At the time that this was happening (**Figure 2**), Omaha,

Neb. was the farthest-west point of development of the United States. Nebraska was not even a state at that time. But Omaha was on one side of the Missouri River; Cedar Bluff, Iowa was on the other side; and that was it. The next U.S. city, the only city between Omaha and Sacramento, Calif., was Salt Lake City. The rest of the western portion of the United States, out to the Pacific Coast, was underdeveloped, untapped. You had had, in 1804-6, the Lewis and Clark expedition, which went out and started looking into these areas of the country. But there was nothing out there.

A Continental Republic

So here you are talking about a transcontinental railroad, which first and foremost, involves undertaking a massive survey of, approximately, the western two-thirds of the United States. Because ultimately, the distance from the beginning to the end of the Transcontinental Railroad would be a little over 2,000 miles. You had a massive survey operation that was conducted over a period of years, in which, for the first time, that whole western part of the United States was mapped out and visited. These were areas which hadn't even really been broken through with very many trails.

When you had the discovery of gold in California in the late 1840s, and the Gold Rush commenced, generally speaking, to get from the East Coast to California, you had three alternative routes that you could take. You could go overland, which was a pretty daunting task; you had about a 50% survival rate if you were really in good health, 18-25 years old, and it took six months. You could take a train, by that point, somewhat into the Midwest. But from there on, it was a long walk; or with carriages and horses; it wasn't a very easy route.

You had a second option, which was to go by boat to Panama; and there was no Panama Canal then, but the Isthmus was pretty narrow; and if you could avoid dying of malaria or smallpox, or other diseases, and you could get out to the Pacific Coast of Panama, and then be lucky enough not to have to wait for months to catch a boat, you could catch a boat on from there up to San Francisco. And that also took—if you were lucky, and made a very good connection between the boats—about six months.

The third, safest option, was to go by boat from ports on the East Coast, all the way around Cape Horn.

If you were lucky—and if you could afford it—that usually took between 200 and 220 days. And again, the prospects of making it in one piece were not all that great.

In other words, the idea that we had a continental republic that was a single, unified political entity, was just not true. Yet Lincoln, and Henry Clay, and Henry Carey and the other key Whig figures, republicans, understood that without that continental republic being consolidated, the United States was finished. And this whole experiment in republican government, which was a global mission, would not survive.

Here you've got a situation where the United States is targeted for destruction by the British. This is not something that began the day that Lincoln was elected. It had been building up for a very long time.

So one of the things that happened when this massive land survey occurred—and it was done under the War Department; the Secretary of War at the time was a guy named Jefferson Davis, who would later become the President of the Confederacy, so you get an idea that there were some political complications here—various routes came back; and Davis recommended that the route that should be chosen, ran through the Southern states. It should run from the Louisiana Purchase, through Texas, through the New Mexico and Arizona areas, and out to California through that route. There was no way that the republican faction, the American System faction, was going to let that happen.

So the issue was under consideration, but was dead because of the politics in Washington, until Lincoln was elected. But there was a paradox. Because within days after Lincoln's election, the Southern War of Secession started. You have to really take in the situation that Lincoln took in, because Lincoln was, remember, for 30 years, convinced that the survival of the United States was tied to the Transcontinental Railroad project. And he understood that this was not merely an American project; this was a model for use in many other parts of the world. And we were already actively helping to build up plans and actually build up the rail infrastructure in Russia at the same time.

'It's the 42nd Parallel'

There was a famous incident in Lincoln's life, where, in 1859, he was visiting Cedar Bluff, Iowa—in fact, he was giving a campaign speech. He was intro-

duced by a mutual friend, to a man named Grenville Dodge, who was the number-one railroad builder in the United States; he was an engineer. Dodge had been directly involved in some of the survey projects into the Western states. In fact, Dodge's teacher, his engineering instructor, had just come back from doing major exploration out in the Puget Sound area, and had just completed a six-month journey, mapping out the land routes potentially usable for the Transcontinental Railroad.

So Lincoln, in 1859, in this chance encounter with Dodge, sat down with him; and he asked him one question: What's the best route out to the Pacific Coast for the railroad? And Dodge had the maps right there in hand, and he said, "It's the 42nd Parallel."

This was all going on as the war clouds were gathering over the United States. Dodge went to Chicago, to the Republican Party nominating convention, and was one of Lincoln's delegates. Shortly after that, he went to Washington to meet with Lincoln, who, even though he understood that war was about to break out, knew that the United States had to launch the Transcontinental Railroad project *at that very moment*.

There were a lot of things involved in this. There was the fundamental issue in Lincoln's mind—and Lyn has discussed this concept over and over again—that the key to warfare is winning the peace. If you have to go to war, you've already failed in the mission of keeping the peace; but if you have to go to war, from the very outset, you have to define war-winning objectives, objectives that will enable you to win the war and secure a better condition of life for both the victors and the vanquished; so that you actually succeed in laying the foundations for a durable peace. And for Lincoln, the issue was the Transcontinental



Union Gen. Grenville Dodge epitomized the Civil War veteran officers whose military experience made the Transcontinental Railroad possible: he was the nation's pre-eminent railroad engineer, and the real progress of the railroad's construction had to await his relief from active duty after the War's end.

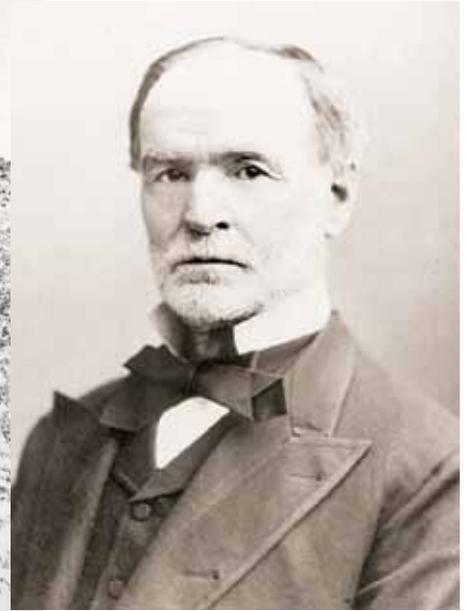
Railroad.

He had some friends and allies in this. And this process, as exciting as it was, was very messy. The American people, during this period, were not exclusively saints. There were people who profited. There were people who did all sorts of things that, in some cases, landed them in jail. But it's how real economics works. These things are not neat and clean. They're not theoretical. Above all else, the key question is leadership. Because under the right leadership, you can force people, even against their worst intentions, to contribute to the good. And you will see that that was the organizing principle that Lincoln used in the Transcontinental Railroad project.

You had a bunch of people who had gone out to California in the Gold Rush of 1849; it was actually their accounts of their travels, which gave this picture of what it was like, going from New York or Boston to San Francisco in the period before the Transcontinental Railroad

was completed. It was absolutely hell. So you had this bunch of people who became leading investors in the railroad. But the most important of those who went out to California, was [at the time, Lieutenant] William Tecumseh Sherman. He had just graduated from West Point, class of 1840, and was sent out to California during the Mexican War on a military assignment. After the Mexican War, he left the military and became a prominent banker and leading political figure in San Francisco; and also became one of the most important boosters of the Transcontinental Railroad.

To give an idea of what the demographics of California looked like at this time: 1850 is when California reached a large enough population to win statehood. At that point, there were 94,000 people living in the state, of whom only 7,000 were female. By 1860, the popula-



Gen. William Tecumseh Sherman, as a businessman in California after the Civil War, became both an investor in, and leading organizer of the completion of the Transcontinental. Another Lincoln Republican, Leland Stanford, led the railroad construction east from Sacramento. Here, the “Jupiter” carries Stanford to the Golden Spike ceremony in Utah.

tion was 433,000. So you get an idea of the phenomenal population growth, even before the railroad was completed. And by the way, by 1860, the population of California included 53,000 Chinese, who came over here, not as slave labor, but because the opportunity to get decent wages were greater than anything available in China. There were a lot of problems; there was racism; there were all sorts of terrible things done; but this was basically not a new kind of slavery. And you’ll see that the Chinese played an absolutely indispensable role in the Transcontinental Railroad.

Railroad To Win the Peace

The fight for the railroad coincided with the outbreak of the Civil War. But nevertheless, Lincoln was absolutely committed to the idea of launching this project even as the war was going on; and in some cases, even in the very darkest days of the Civil War.

By May 6, 1862, the House of Representatives passed the Pacific Railroad Bill; and about a month and a half later, on June 20, it was passed by the Senate. Because of the demands of the war, the idea of the railroad being built as a government project, per se, was out of the question. Nevertheless, it gives you an idea of the different means by which the government could play an

absolutely pivotal role in directing this kind of great national project.

Under the original 1862 law, provision was made for creating two quasi-public corporations. One, was the Central Pacific Railroad; and the other was the Union Pacific Railroad. The Central Pacific was already in the works. And among the people who were involved in it were William T. Sherman and Leland Stanford, who was a Lincoln Republican, and became governor of California in 1860. They were among the wealthiest people in the state, and were among the investors in the original Central Pacific Railroad project.

The Union Pacific was set up by a group of people back East; but the provision was that these two rail lines would be built with the Central Pacific starting out in Sacramento, and moving eastward; and the Union Pacific starting out in Omaha and going westward. The idea was that they would meet up at some point in between, and Congress was very careful not to predetermine where that point would be.

There were a lot of things that went into this project, particularly at the point the War ended. But the point is, that this thing started while the Civil War was going on. This was something quite extraordinary: that Lincoln had this vision of what it would take to win the peace;

and he knew that there could be no compromise, no armistice, that the Confederacy, this British insurrection, had to be absolutely defeated; but that at the same time, there had to be a great national mission and project that would define the war-winning objective, and would be an instrumentality for healing the terrible wounds of the Civil War.

You'll see that that's precisely what happened, even though most of the work was done after Lincoln was assassinated.

The project was launched. The Union Pacific recognized that to do this thing right, the person that they had to have in charge as the chief engineer, was Grenville Dodge. Except, by this point, Dodge was a general in the Union Army, and there was no way he was going to resign his commission to go to work building a railroad, until the insurrection had been defeated. In fact, he was one of the most important figures in the Union Army. He was the general serving immediately under William T. Sherman, heading up the engineering division, and played a critical role in the flanking maneuver that ultimately led to the march and sacking of Atlanta, a critical turning point in the Civil War. What Dodge did during the War was real on-the-job training for what was done with the Transcontinental Railroad, because his main mission was building rail lines, repairing lines that had been sabotaged by fleeing Confederate forces, and building bridges over rivers that had been destroyed, again, by retreating Confederate forces.

So one obstacle was that the person singularly most qualified to do the job was occupied—justifiably so, but occupied—until the Spring of 1866.

The Physical Obstacles

There were a lot of challenges. I don't know how many of you have had a chance to explore around the Sierra Nevada Mountains, with their enormous walls of granite. To actually create a rail line linking Sacramento



Chinese immigrants played an important role in building the Central Pacific through the Sierra Nevada Mountains, using experience from road-building along river cliffs in China.

and San Francisco, you had to figure out some way to get through the Sierra Nevadas. And at this point, the technology available was extremely primitive. This was one of the ways that the Chinese played a very extraordinary role.

The first phase of the construction work was the surveying of land that had really never been surveyed before. The question was, how are we going to build rail lines through granite mountains? What are we going to do about the bridging technology to get very heavy track and very heavy trains going over river beds, through these mountain gorges, which in some cases were very high up and spanned fairly substantial distances? The person who had invented the bridge-and-trestle system was Leonardo da Vinci. And the next major technological advances were made on the construction of the Transcontinental Railroad.

The Chinese were instrumental, because in China, over many centuries, there had been experience with, for example, building roadbeds along the Yangtze River, with mountainous cliffs on the side. To give you an idea of how they did this: The crews that had to cut through major tunnels in the Sierra Nevadas—once they had even figured out where to do it with the most efficient routes—you had these crews starting on both



ended in 1865, this project became the number-one nation-building, nation-healing, high-paying job for the tens of thousands of Civil War veterans—generally 18-20-year-old kids who had fought on either the Union or the Confederate side—this project defined a national mission that helped reunify the country after the Civil War, and after all of the scars of the War. It was a national project that everyone took pride in, and it was an opportunity for people who would have been in much worse shape if you didn't have this kind of major jobs program going on.

This was the project under which many, many Chinese people came to the United States, and immediately had access to some of the highest-

Just west of the juncture at Promontory Point, Utah, a 2,000-man Central Pacific crew laid an unprecedented 10 miles of track in one day. Shown: Central Pacific crews at Camp Victory, west of Promontory Summit, Utah (photo by Alfred A. Hart, 1869).

sides of the mountain. One question—not an inconsequential engineering issue—was whether or not the two sides were going eventually to converge, or waste a lot of time and miss the route. These were—not necessarily Brunelleschi's Dome—but these were very serious engineering challenges.

The way it actually worked, was that at the peak of building of these tunnels, they would have three crews working 24 hours a day, 8-hour shifts; Chinese workers, basically with hammers and drill bits, would hammer holes into the granite, and initially, they would basically stuff the hole with black powder explosives. They'd light the fuses, step back; then they'd have to lug away whatever rock was blown. And on the average, on a good day, taking the whole face of the tunnel, they'd get somewhere between 6 and 12 inches a day. So you're talking about colossal engineering tasks here. And it took quite a number of months to do. Eventually, this became the first project where dynamite black powder was replaced by the use of nitroglycerin, which significantly sped up, in the latter phases of the project, the tunneling aspects.

These were engineering feats that had never been achieved before. From the point that the Civil War

paying jobs in the country. And they did an absolutely extraordinary job, principally working on the Central Pacific line coming east from California. Most of the workers on the westbound line were Civil War veterans, some from the South, a lot from the North; a lot of Irish. And at the peak point, on any given day there were 30,000 people working full-time on the construction of the railroad. It was done, eventually, after Dodge retired from the Union Army. And his last assignment was under Sherman in the Western territories of Mississippi and Missouri, where they also had to do a lot of negotiating with the Indians, in order to secure these projects as they were going forward. Very tricky, very messy.

Financing and City-Building

The way that the Federal government funded the railroad project, as a national project, was that the two corporations—the Central Pacific and the Union Pacific—were pledged a certain amount of money in low-interest Federal bonds for every mile of track that they completed, and which was certified as having been constructed up to par, by government inspectors. And they received, usually, \$12,000 per mile for flat track,

\$36,000 per mile for graded track, and \$48,000 per mile for these specially challenging areas, up through the mountains, and things like that. They were also given land grants. The Federal government owned most of the land in the area. So the railroad companies were given land grants for the land adjacent to the rail line.

But the most important thing, is that—imagine the situation, say, for the Union Pacific line going west-bound from Omaha. There’s nothing ahead of you until you hit the Salt Lake in Utah; and it was at the Salt Lake where the two lines actually met and the Golden Spike was laid.

So, really, you’re going through an area where there is not so much as a village along the way. So, in a sense, you’re using the same kind of military logistics that you would use to move an army forward. Because you’re bringing all of your supplies behind you, and as you’re moving the track forward, you’re bringing all of that along. And at certain critical points, they designated areas where they would build cities, because they needed to be building more rolling stock, railroad cars, locomotives. So, in other words, the major cities along the route of the Transcontinental Railroad were built as part of the project itself.

It was even more difficult from the standpoint of the Central Pacific, because everything that they got had to come by boat, either around Cape Horn, or through the Panama Isthmus, so they had even more daunting costs and logistical challenges. Everything had to go to the West Coast, and then come back East.

At a certain point, in the Winter of 1866-67, and again in 1867-68, that whole area of the country experienced the worst blizzards in recorded memory. And so, the decision was made by the Central Pacific, that the only way that they could move along fast on schedule, was by actually building sheds over the track. So that as they moved the track forward, they were actually building these wooden sheds, so that if there were avalanches of snow, they went off on the side, and they didn’t destroy the track. What they built, as simply a temporary part of the construction logistics, was what was called the “biggest house in the world.” One segment alone, was a single uninterrupted wooden structure that ran 29 miles long.

So there was a lot of innovation on this project as well. And there were also a lot of problems.

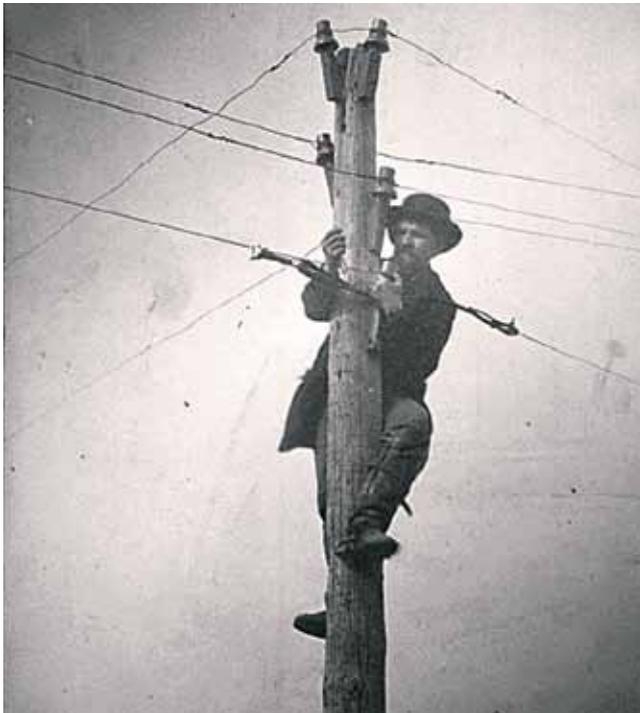
One problem originated the term “hell on wheels,”

because what happened is, that since this was the largest construction project, certainly in the history of North America, with tens of thousands of workers getting paid cash on the job, wherever the railroad was, there were these roving whorehouses, saloons, tents that would pop up overnight, gambling dens, prostitution houses; and so you had a whole sort of criminal apparatus that was parasitizing off this project. You know, you had young guys—as I said, in 1850, there were only 7,000 women in the entire state of California. I can assure you, there were none along the construction route, other than these mobile crews, this “hell on wheels.”

So, as I say, it was an imperfect phenomenon. Real people were doing it. But because there was a top-down sense of a national mission, and a certain commitment that the future of the country was at stake, and that there was a great precedent being set, even with all of these problems, things got done in a miraculous way.

You also had Wall Street swindlers, who made a killing on this. In fact, shortly after the completion of the Transcontinental Railroad, a number of the top executives of the Union Pacific went to jail. One of my favorites was a guy named Francis Train, who was a relative of John Train—one of the nasty Wall Street characters involved in the “railroad” trial of Lyndon LaRouche. Very important guy. But it was his family that set up a construction company called Crédit Mobilier of America, and they were convinced there was no money to be made in the railroads. They were convinced that the money to be made, was through skimming off of the government guarantees of bonds to cover the construction costs. So, some of the top executives of the Union Pacific set up, with Train, Crédit Mobilier, as a construction company that they hired to do all of the work on the project. And so there were points toward the end, where the workers were not getting their wages, but where the investors in Crédit Mobilier were getting 300% of their investments back in dividend payment. So this is the kind of thing you were dealing with.

There were government regulations, there were all sorts of provisions for the government money in the form of land grants and bonds, but it was done with a lot of imperfection. The kind of thing that you wouldn’t allow to happen the next time around; but again, the point is that all of this was still, nevertheless, vectored into this great project.



Library of Congress

The telegraph which was strung across the United States with the Transcontinental Railroad, continued, with Russian collaboration, all the way to St. Petersburg.

An International Project Mission

Another aspect of the Transcontinental Railroad project was that, all along the way, attached to the rail crews, were the telegraph crews. So that for the first time in the United States history, and the first time probably in history of anywhere, telegraph lines were being built that would eventually connect the entire United States. And as part of the understandings that Lincoln had worked out with the Russians, the telegraph lines actually went uninterrupted, by the end of the Civil War, from Washington, D.C. to St. Petersburg, Russia. In other words, there were crews in Russia that were building the lines from San Francisco up the coast, over the Bering Strait, down to Vladivostok, and on to St. Petersburg, so that there was a U.S.-Russian integrated telegraph system. That also tells you very clearly, that the rail project was something that was not an American-only project; it was something that was intended to be part of a global revolution, that the American System republicans were carrying out.

We finally reach the point, in May of 1869, that the rail line was finished. And I think the final anecdote on the construction is sort of interesting,

By this time, you had, really, an incredible engineering capability that had been developed, through the course of this seemingly impossible project. And in fact, much of the rapid development, the city-building, and massive expanded railroad construction that occurred after this, was done by the people who built the Transcontinental Railroad. They developed extraordinary engineering skills. Dodge, who lived until 1916, continued for the rest of his life—he never retired; he continued right up until his death building railroads, the last one being in Cuba.

But these crews became so proficient, that a week before the Golden Spike was drilled, one of the owners of the Central Pacific made a bet with one of the owners of the Union Pacific, that the Central Pacific crew could lay ten miles of track in one day. Which was a pretty extraordinary feat. And so, the guy took the bet, and basically, this was one of the most extraordinary militarily precise operations, that anybody had ever seen up until that point. And they literally had an uninterrupted line, a moving line, of 1,000 people on each side of the track as it was being laid, moving at a rate of 1 mile an hour, laying railroad track; and, in fact, about a mile an hour, particularly through that kind of terrain, is about the maximum that you would be able to have an army march—never mind building a railroad. They took a long lunch break of about two hours, at about 1:30 in the afternoon. They started at dawn, and by that point, they knew they were going to achieve it, and then some. And they had back-up crews ready to replace them, and they said, “No, no, no, we’re not going to even do it.” And so, they completed the whole thing; they laid about ten and a half miles of track in one day.

The guy who lost the bet, welshed on it. He was one of the people who later went to jail for the financial swindles, but, as I say, there were a lot of warts in this project. This was not all done by saints floating on clouds, but it really was a question of leadership.

And I think it’s an important question of leadership for everybody here to think about today, since we confront continuously this paradox, of this great opportunity and great mission which we’re all confronted with; and we look around and we see a population that’s not really ready to fight. But you see that if you had leadership, and provided a certain sense of mission and purpose, that people who have enormous flaws, can change overnight. They may not become perfect citizens of a republic within 24 hours, but you can get a lot of good,

FIGURE 3



The World Land-Bridge, as sketched out by transportation consultant H.A. Cooper. The development corridors of the Eurasian Land-Bridges and their extensions elsewhere in the world, is today's overall development mission, as the Transcontinental was to Abraham Lincoln's United States.

healthy work out of them, and that that's exactly what happened on this project.

Transformation of the United States

So, what happened?

The poet Walt Whitman had traveled west, partly on the Transcontinental Railroad, before it was completed, and then by stage coach and other things, and he wrote a famous book called *Passage to India*. And at the time, everybody thought that the great benefit of the Transcontinental Railroad was going to be trade with the Far East. But what happened is, that in 1869, the same year that the Railroad was completed, so was the Suez Canal, so this Western route proved not to be such an enormously important boost for American trade with the Far East.

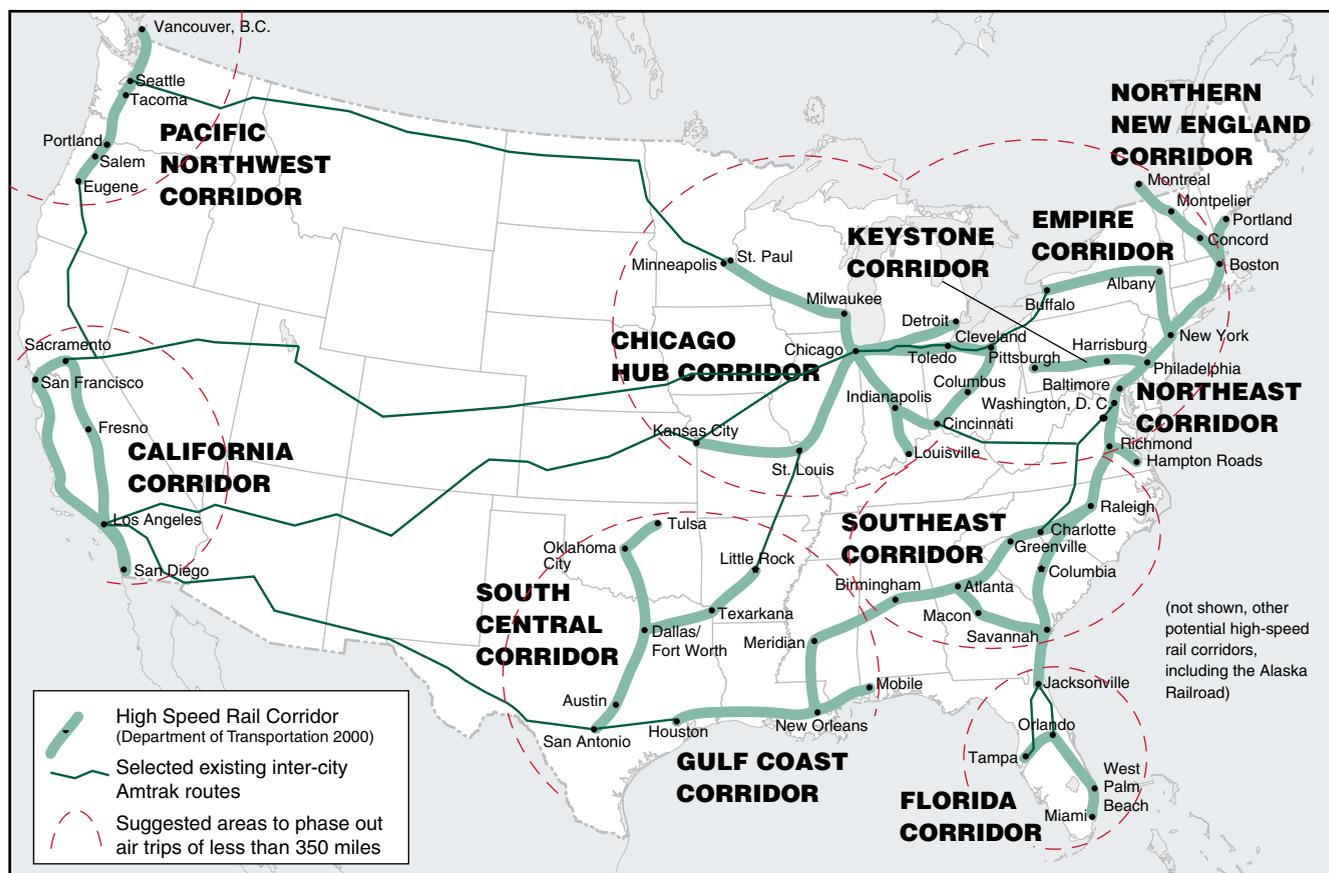
But it turned out, that was never going to be the situation anyway. The issue was, that you massively expanded the population of the entire Western half of the United States; you had city-building projects going on everywhere, massive internal trade, many other devel-

opment projects that went on from there. And so what was really important—and this was really understood by Lincoln, and the Careys, and Clay, and others—was the transformation of the United States into the greatest industrial republic on the planet, in a very short period of time, through this extraordinary project, among other things.

Now, this is a fairly good representation of the World Land-Bridge (**Figure 3**). People are familiar with the Eurasian part of it, but the idea of the Eurasian Land-Bridge was in fact implicit—and for many people, explicit—in the Transcontinental Railroad. There were large numbers of Russian military engineers who participated in the building of the Transcontinental Railroad, with the idea that they were going to go back to Russia, and do the same thing there, which you see. After doing this little pipsqueak 2,000-mile line through the middle of nowhere, now you were ready for a real challenge, in the Trans-Siberian Railroad. And it took one generation to complete it.

Twenty-five years after the Transcontinental, the

FIGURE 4
United States: High-Speed Rail Corridor Designations



Today: High-speed rail plans unfunded and unrealized. These high-speed rail corridors were named by the Department of Transportation as long ago as 2000, because of local demand; but no intention to build them has emerged under British-agent Presidents Bush and Obama.

Trans-Siberian Railroad was finished; and not only were there American engineers in every phase of the project, but the first locomotive to ride across the Trans-Siberian Railroad was built in Philadelphia by the Baldwin Engine Company.

So this was a global project, in the same way that Lyndon LaRouche talks about the Eurasian Land-Bridge. Nobody thinks about this as a particular project for one country, or one region. It's the mission of global development, and the idea of connecting the entire world, through these high-speed rail lines, which are not merely transportation routes, but development corridors (**Figure 4**). The only economic sense is, every step along the way, to take these barren areas, and turn them into areas of great economic development, using the most advanced technologies of the moment.

So, here we are, 150 years later, we're still talking about railroads. Thank God, we're talking about a whole new generation—really, two generations of technology later. But the principle is the same. So, when some idiot says to you, “What’s in it for us? What’s all this with these railroads in Asia? What do we need that for?” Or says that this project represents a strategic threat to the United States, then you can just write down their name in the book of members of the Party of Treason, because that’s what they are.

Note: Much of the material presented here was based on the book *Nothing Like It in the World—The Men Who Built the Transcontinental Railroad 1863-1869*, by Stephen E. Ambrose (New York, Simon & Schuster, 2000).