# Only a Complete Change in Paradigm Can Avoid Catastrophe

This is the keynote speech to the opening of the conference on Nov. 24. We include a selection of the graphics here. The video of the speech will be posted as soon possible at http://www.schiller-institut.de/.

Ladies and Gentlemen, dear guests of the Schiller Institute, let me welcome you to this conference. It is a rare event that a conference of this scope and international attendance is called on such short notice. As a matter of fact, the preparation for this conference only took place over four weeks. But the reason is, that the international situation, especially in the Middle East, and the possible dangers coming from that region for the rest of the world, made it necessary to have such an emergency conference.

All of you know that the situation in Southwest Asia, or the Greater Middle East, right now, is a complete and total powderkeg. As a matter of fact, one can compare it to the situation of the Balkans before World War I. And you can easily see that just one more incident, and it could explode into a new Third World War, which, this time, in all likelihood, would be a thermonuclear war, and we are literally on the edge of it. If it would happen, it is our best estimate that this would lead to the extinction of the human race, because if only a small percentile of the available nuclear weapons would be used, that would lead to a nuclear winter, and after one and a half hours, most life would be extinct, and after a few weeks or maybe years, the likelihood is that nobody would survive.

This is only one of the existential dangers. The other one is that the trans-Atlantic financial system is also about to collapse, and it is on the verge of a hyperinflationary explosion. The euro system is about to blow, and if you look at the absolutely devastating situations in Greece, in Italy, in Spain and Portugal, you have a foretaste of what could happen in terms of an uncontrolled social explosion and collapse in all of Europe. Now, for any thinking person—and unfortunately there are not so many around these days—it should be obvious, that if this present trend of politics is continued, mankind is about to crash at full speed into a brick wall. The present policies have brought about the most existential civilizational crisis in mankind's history, and if they continue, mankind will have proven not to be one iota more intelligent than the dinosaurs.

The purpose of this emergency conference, therefore, is to propose a complete and dramatic paradigm shift, to end the paradigm of geopolitical confrontation and conflict resolution by war, and have, instead, a paradigm where the oligarchical financial system of profitmaximizing for banksters and speculators, which right now is threatening the lives of literally billions of people, is replaced with a new paradigm, where the focus is on the "common aims of mankind" and overcoming those threats which could lead to the extinction of civilization.

This new paradigm shift must address the axioms underlying these policies, and must be as fundamental as that axiomatic shift which separated the Middle Ages from modern times, with all its breakthroughs in natural science and Classical artistic composition. The Middle Ages, which was characterized by scholasticism and superstition, was replaced by a focus on modern science and modern culture.

# The Mideast: Shift the Axioms

Now, if you look at the Middle East situation, it is good that this ceasefire between Israel and Hamas, mediated by the Egyptian President Morsi, supported by Hillary Clinton and UN chief Ban Ki-Moon, did occur, and hopefully, at least for the time being, it put out one of the many fuses; but it does not, at all, fundamentally change the situation between Israel and Iran, which is still set on a course of confrontation, and it unfortunately does not change the regime-change policy against the Assad government in Syria.



Helga Zepp-LaRouche addresses the conference. "Can you help to convince the governments of the world to abandon a narrow-minded, geopolitical confrontation, and make the kinds of the changes which are necessary to guarantee the survival of the human species?"

On Nov. 20, there was an article in *Ha'aretz* written by a Druze-Israeli poet, Salman Masalha, who, in my view correctly, said that the attack by Israel on Hamas was part of a well-defined plan to take out, before the attack on Iran, the so-called "wings" in the Gaza Strip and in Lebanon, which would be activated in case of an Israeli attack and an Iranian counterstrike. And this attack on Iran is still scheduled to occur if things remain as they are, because one should not forget that only very recently, at the UN General Assembly, Prime Minister Netanyahu presented this very strange sketch of a nuclear bomb, with a red line, and this red line was supposed to be crossed in six months.

Two months of these six months have passed already, and Netanyahu also made a speech in the Knesset in March, where he said literally, and this is quoted by the *Ha'aretz* article, "Sooner or later, Iran's forward positions in Gaza must be eliminated."

Now, just to say this as a clarification, and you will have the opportunity to hear from His Excellency, the

Ambassador of Iran, his views on the matter, but, according to our best knowledge, according to the National Intelligence Estimate put out by all the intelligence organizations of the United States, as well as the German BND, there is no evidence whatsoever that Iran has resumed its nuclear weapons program, which it discontinued in 2003. But that, naturally, given the volatility of the whole situation, Iran is pursuing very actively a policy to be nuclear capable, so that if some attack occurs-which also in the general estimate would not eliminate the nuclear program of Iran entirely-it could proceed very quickly to develop a nuclear bomb. But that is a big difference from having an active nuclear weapons program right now.

What else was the intention behind the targetted killing of the military leader of Hamas, Ahmed Jaabari, on Nov. 14? This set an escalation into motion, leading to a boiling rage among many people in the Arab world. Hopefully, by the ceasefire, this has calmed down a little bit. But that alone is not enough to put out the fire which is already burning.

Look at what Turkey is doing. They are obviously a member of NATO, and they

have officially requested the deployment of Patriot missiles and approximately 170 Bundeswehr soldiers at the Turkish-Syrian border. For what?

Germany seems to be capitulating to it, because there is gigantic pressure being applied that Germany, which did not participate in the Iraq War or in the Libya War, must now be involved in any new NATO campaign, out of loyalty to the Alliance.

So far, nothing has been coming from Syria in terms of weapons against which the Patriots would be effective. So far, only grenades and artillery were fired, and it is also not so clear from whom; it could have been the rebels, it could have been provocations; it could have been the Syrian Army. But the *cui bono*? has to be asked on this, as well.

NATO chief Rasmussen assures us that the deployment of these Patriots is only for defensive purposes. But, what about the statement of British Prime Minister Cameron, that sooner or later the British government would be involved in establishing a no-fly zone over some territory of Syria? And what about the statement of the Chief of the Defense Staff of Great Britain, Gen. Sir David Richards, that it's just a question of time, when British forces will intervene in Syria, if the socalled "humanitarian" situation worsens?

Once these Patriots are deployed, what counts is not words, but in military terms, what counts is capability, and once this capability is there, if then you have an escalation, they will be used, and the Patriots do represent the capability to participate in the enforcement of a no-fly zone over parts of Syria, and *that is absolutely unacceptable* for Russia and for China. And that is why the Russian government immediately, after this announcement of the Patriot deployment, warned that this leads to a very dangerous destabilization of an already extremely unstable region.

As a matter of fact, if this happens, we are on the course to a third, thermonuclear, world war.

And I don't know what is causing the German government and some of the opposition parties to follow this insane policy, because it will lead to the destruction of Germany! Germany is in this Alliance, and therefore a target of everything that will happen.

And I want to really appeal to all of you, to help us to make that an issue. Because the thing which is really extremely upsetting, is that civilization is on the verge of World War III, and there is no debate about it! If you remember, 50 years ago, during the Cuban Missile Crisis, there was extensive discussion what would be the consequence: President Kennedy, at that time, warned that the people who would die within the first minutes, would be better off than those who died weeks later. When there was a middle-range missile crisis in the beginning of the 1980s, there were hundreds of thousands of people in the street. And now, we are in a much, much worse situation, and neither the media nor the politicians have anything to say. The general population doesn't know that we are on the edge of extinction.

# **A Policy of Empire**

The question is, how could the world come to this point? When the Soviet Union disintegrated between 1989 and '91, there was the historical chance to create a peace order for the 21st Century, because there was no longer an enemy. It would have been possible to completely reorganize the world and establish a development perspective. Unfortunately, at that point, in the United States, the neo-cons emerged in the old Bush, Sr. Administration, and they decided, together with the British—Margaret Thatcher at that time, to run the world as an empire, based on the "Anglo-American special relationship." The first step was to turn Russia from a superpower, into a Third World raw-materials-producing country, during the Yeltsin period: This was done with the help of the shock therapy, privatization; the Russian productive potential collapsed, between 1991 and '94, to only 30% of its previous levels.

At the same time, the policy of regime change was established against any country which would not submit itself to this idea of an empire. This led to the first Gulf War, which started on Aug. 2, 1990, supposedly by the attack by Iraq against Kuwait, but remember the treacherous words by U.S. Ambassador to Baghdad April Gillespie, who encouraged that, and therefore contributed to this war. This drive was then interrupted for eight years of the Clinton Administration, in which, among other things, the Oslo Accords occurred.

But in the background, the neo-cons, all the time, continued with this policy. In 1996, a policy document was written by a study group led by Richard Perle, for Prime Minister Benjamin Netanyahu, which was called "Clean Break," and this was a complete rejection of the Oslo Agreement, which demanded a comprehensive peace with the entire Arab world; the Perle document suggested that Israel should work instead, with Jordan and Turkey, to "contain, destabilize, and roll back, the governments of the neighbor countries, of Iraq, Syria, Iran, and Lebanon."

Then, from February 1998 on, the Tony Blair government, in league with Netanyahu, put pressure on President Clinton for a regime change in Baghdad, which supposedly had weapons of mass destruction. President Clinton initially rejected that, but then, when he was under the impeachment threat because of the Monica Lewinsky affair, he basically authorized Operation Desert Fox, in December 1998. Then, one year later, in 1999, Blair made the infamous Chicago speech, where he announced the Blair Doctrine, which basically said that from now on, it would be justified everywhere in the world, to have humanitarian interventions. This was the same year in which globalization really went into high gear with the financial deregulationwhich he had also demanded in his speech, which led to the repeal of Glass-Steagall-full, unregulated free trade and environmentalism, also the health policy of the National Health System of Great Britain, which has

a euthanasia/triage policy. All of this was announced in this speech by Blair.

Blair, in his speech, praised the long history of British relations with "Chicago-land," and maybe that is also the reason why he was the election advisor to President Obama for the entire present year.

Now, on Jan. 3, 2001, my husband, Lyndon La-Rouche, made a prophetic webcast, that the Bush, Jr. Administration which was coming in, three weeks later, would be confronted with such problems of the financial system, that they couldn't handle it, and that they would therefore be tempted to create a new "Reichstag Fire" incident. Now, this was prophetic, indeed, because exactly eight months later, September 11th occurred.

There was a commission which investigated the events of Sept. 11, and included members of both the Congress and the Senate, and the leader of this commission, Sen. Bob Graham, recently pointed out that the classified 28 pages of the report were never published the pages that President Obama had promised to immediately declassify, once coming into office—and this was a demand by the families of the victims at the World Trade Center, that that file should be opened, because it pertains to the role of Saudi Arabia.

Now, we have published extensive documentation of the role of the British BAE in the so-called al-Yamamah deal, which pertains to the British-Saudi financing of Sept. 11th, and all of this is documented very well. And in this official document from the U.S. Congress, these 28 pages are suppressed; and Senator Graham gave an interview to the *Huffington Post* on Sept. 11 this year, where he demanded that they be published, and explicitly talked about the role of Saudi Arabia.

Then, the second Gulf War started on March 20, 2003. This had no UN mandate; it was done by the "coalition of the willing." Now, this was all based on a memorandum by MI5, which basically said that Iraq had "weapons of mass destruction"; that they would have the ability to reach any major city in 45 minutes around the world, that Saddam Hussein had relations with al-Qaeda. You remember the yellowcake story of supposed nuclear material from Niger. And Colin Powell, the then-U.S. Secretary of State, used this memorandum to justify, in a speech to the United Nations, the attack on Iraq. And it turned out it was all a lie, and Colin Powell is on record for having said that this speech was the biggest mistake of his life.

Then, you had in the Fall, last year, the so-called

humanitarian intervention against Libya, and at that point, the Obama Administration was in full gear to continue the regime-change against Syria, against Iran, but really, against Russia and China, but for the international mobilization Mr. LaRouche initiated, which the Schiller Institute did worldwide, and very importantly, but for the Chairman of the U.S. Joint Chiefs of Staff, General Dempsey, who intervened again and again. When Susan Rice, for example, said, "Now all options are on the table," then he would intervene and say, "No, Iran has a rational government and we can negotiate"; or he warned against military intervention against Syria. And the reason is very simple: that the U.S. military knows fully well, what an outbreak of war would be. And you can judge it yourself, and compare the reasonable statements by the U.S. military, and the bellicose statements by the Obama Administration.

At the recent conference of the National Council of U.S.-Arab Relations, the former U.S. Ambassador Chas Freeman gave a devastating account of this policy. As a matter of fact, he sent his speech to this conference, and probably we can read a short excerpt from it. From a strictly internal American point of view, he points to the complete failure of this policy, and that it did not serve American interests, but to the contrary, that the Iraq War was not a "cakewalk" which would pay for itself, which was the line before it happened, but that it killed 6,000 U.S. soldiers, wounded more than 100,000-I'm not even talking about Iraqis-it cost \$3.4 trillion, and now Iraq doesn't have a pro-American government, but a government which is more leaning towards Iran and where you have the danger of a Shi'ite-Sunni confrontation.

The U.S. influence in the region is not enhanced, and AmbassadorChas Freeman also makes the point that it has not demonstrated the power of the United States, but the limitations of the U.S.'s ability to accomplish its aim. Now, if the aim was, he says, to demonstrate the U.S. rule of law, and the superiority of U.S. liberties, well, unfortunately, the world has experienced Abu Ghraib, the denial of the Geneva Convention protections for its enemies, and it leaves the United States morally diminished. The Afghanistan War, after 11 years, has killed 2,000 Americans, has wounded 16,000, and the only thing left now is a more or less shameful exit, because the people who are being trained to take over security are now turning around and killing those who are training them.

The "Arab Spring," at best, was not an Arab Spring,

but a Salafist awakening. The drone war has killed 5,000 people without legal process, without accusation, without recourse to courts; and al-Qaeda is not finished, despite the rather bestial perpetration of killings before running video cameras, but al-Qaeda is strengthened, and has spread to Pakistan, Yemen, North Africa, the Sahel zone, and other places in Europe and Asia. So the U.S. influence has not been strengthened but weakened, and what is left is mere military power as such.

## The Blair Doctrine in America

The United States unfortunately, has, as of now, completely taken over this Blair Doctrine, and it's called the "responsibility to protect." The Obama Administration has instituted something called the Atrocities Prevention Board, which draws up lists of countries in which humanitarian violations occur, and which are scheduled for intervention.

Then, you have to take into the picture that the NATO and U.S. missile defense system, which is being built in Eastern Europe and some of the Mediterranean, is regarded by Russia as an encirclement, together with NATO's eastern expansion; and General Makarov, former Chief of the General Staff, said Russia cannot accept that, because it destroys the Russian nuclear second-strike capability, and therefore, destroys the strategic balance.

China has reacted in a similar way to the new alliances which the United States has formed in the Pacific.

Now, if you look at the immediate situation concerning Syria: While in the case of Libya, Russia and China still were neutral, but after they saw that the socalled "humanitarian intervention" in Libya was really a full-fledged war, with the bestial assassination of former President Qaddafi, who did not enjoy the protection of the Geneva Convention, they are now vetoing in the UN Security Council, and therefore, you have, in the case of Syria, the immediate clash of the Putin Doctrine versus the Blair Doctrine. The Blair Doctrine says the Peace of Westphalia of national sovereignty is over, humanitarian interventions are allowed; the Putin Doctrine, which he deliberately sent to all the governments when he came back as President this year, says that Russia absolutely upholds the UN Charter, which guarantees the national sovereignty of every country.

These could clash while we are talking here.

Secondly, the situation with Iran has equally has the potential to lead to war, because it is very clear that Israel alone cannot really carry out such a mission, because of the distance, the refueling, the various other limitations, and therefore, the aim is to pull in the United States. If this happens, then it is really the end of civilization.

The whole problem is aggravated by the fact that we are right now seeing the collapse of the trans-Atlantic financial system, which is the end result of the same imperial policy caused by the repeal of Glass-Steagall and the full deregulation of the financial markets.

The absolute desperation of the people in Greece, in Spain and Portugal, and also Italy—which is not so much reported—but the suicide rate in all of these countries has tripled, quadrupled; people are just completely desperate, and this gives you a foretaste for what could come.

I'm in contact, and the Schiller Institute in general, we are in contact with many economists, who privately tell you that what these governments are doing with their EU austerity policy and bailouts, is completely irresponsible, because it could come to a sudden collapse of the banking system, with incalculable social consequences. And it is quite telling that both the EU and Great Britain, and also the Swiss government, all have made contingency plans for the collapse of the euro, and the total collapse of the international financial system.

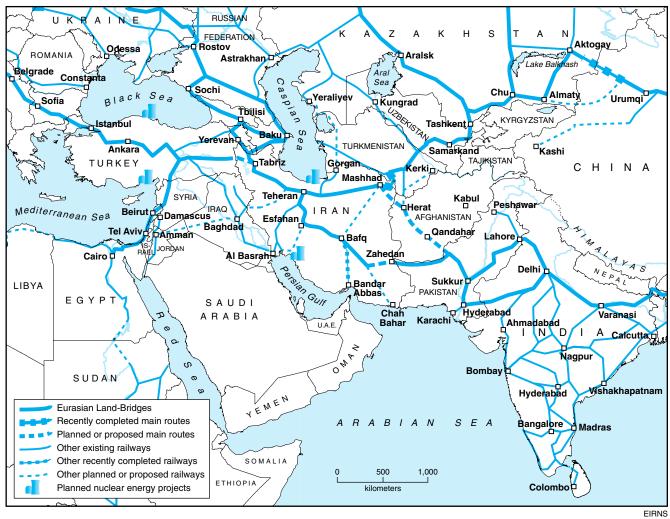
The question therefore, is, if you look at these two mortal dangers—the danger of thermonuclear war and the danger of a financial collapse—the question is, when we are in mortal danger of extinction as a human species, do we have the moral fiber and the intellect to change the paradigm in time? Or, will we prove no more intelligent than the dinosaurs?

# **Restore the Peace of Westphalia**

What we need to do, is to introduce a complete new perspective into the international discussion, and propose a solution on the level of reason, on a higher plateau than all the different historical, ethnic, religious conflicts represent. Something everybody can recognize as more beneficial to themselves and future generations, than the pursuit of the present supposed selfinterest.

We have to do exactly the opposite of the Blair Doctrine: We have to reestablish the principle of the Peace of Westphalia, which, after all, was only accomplished because 150 years of religious warfare and the Thirty Years War on top of that, had destroyed large parts of Europe, up to a point where it was clear that the con-

#### FIGURE 1 Southwest Asia: Rail Routes and Nuclear Energy Projects



tinuation of the war would leave nobody to enjoy the outcome. That was the condition under which the people of the Peace of Westphalia sat down for four years, and developed this accord, which became the basis of international law and the UN Charter.

Now, let's recall the first principle of this Peace of Westphalia. For the sake of peace, it says, all crimes committed by one or the other party must be forgiven and forgotten. If that is not applied, there will never be peace.

The second principle: For the sake of peace, all policy, from now on, must be in the interest of the Other. That is the foundation on which peace can function.

And thirdly, not in the document as such, but as a consequence, in the aftermath, it was the formulation

of the importance of the sovereign nation-state, and the role of that state in the reconstruction of what was destroyed by the war, on a more advanced level than it had existed before. And that was what led to the beginning of physical economy, in the form of cameralism.

What we propose concretely is an economic development plan for the entire region of Southwest Asia. The Greater, Near, and Middle East, and I want you to imagine the entire region [**Figure 1**] of the Caucasus, Central Asia, Afghanistan, Iran, the Gulf States, the Arabian Peninsula, Israel, Palestinian National Authority, Jordan, Lebanon, Syria, Turkey, and Iraq, as one space, as one integrated space. So, rather than this area becoming the cockpit of the thermonuclear deFIGURE 2



struction of the planet, we should make it one of the most prosperous and well-developed regions of the world.

Now look at the desert areas **Figure 2**: You see an enormous area of desert, which starts, really, from the Atlantic coast of Northern Africa and stretches all the way through the Arabian Peninsula into western China, and it encompasses a region of 13 million km<sup>2</sup>.

Just imagine now—you have seen it many times on television—the bombed-out cities of Gaza, of Baghdad, of large parts of Syria, and we see a region which

is completely devastated, where the average income of many people is \$800, but not per month, but per year. This is the reason why it is not easy to have peace, because if you have that poverty, and you see what is going on, the recruitment to terrorism is not so difficult.

But, this picture does not have to be the only vision, because this region did not always look like that. At the end of the last Ice Age, it was mostly covered by vegetation. Now, in your mind, if you condense the last 20,000 years since the last Ice Age, into a five-minute computer animation, you can see how the desert expanded. And the desert is still expanding! Five years ago, the United Nations was warning that if the desert expansion were not reversed, soon it could lead to the displacement of 50 million people or more.

## A Golden Age

But there was also a period where this region of the world was almost the high point of the entire globe! This was the period of the Silk Road, the period when, in this region, you had the largest exchange of goods and cultures, flourishing of trade, urbanization, architecture. Baghdad during the time of the Abbasid dynasty was the most developed city in the world. You had more literate people, more books, more libraries.

Figure 3 shows Caliph Haroun al-Rashid meeting with Charlemagne; and in

that period, they collected all the knowledge of the Mediterranean, from Egypt, from Greece, from Italy, from Spain, and emissaries would bring the knowledge to the different caliphs, like al-Mansour, or Haroun al-Rashid, and they would weigh them up with gold for what they found. When Europe was destroyed, after the collapse of the Roman Empire, much of the knowledge of the high period of Greek civilization or other advanced periods was lost, and it was only through the connection of Haroun al-Rashid with Charlemagne that Europe could rediscover its earlier roots!

#### FIGURE 3 Harun al-Rashid Receiving Charlemagne in Baghdad



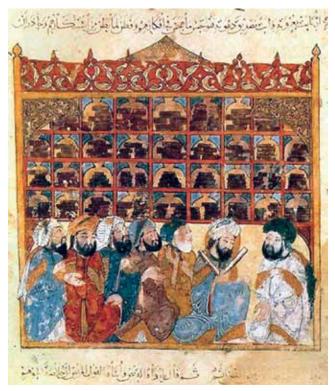
Painting by Julius Kockert, 1864.

# FIGURE 4 The First Hospital, in Baghdad



Here you have the first hospital [**Figure 4**]. This is Haroun al-Rashid playing polo [**Figure 5**]. Now, I find this very amusing, because, you know, it just shows you, they had leisure to do these things. **Figures 6 and 7** show the House of Wisdom in Baghdad.

#### FIGURE 6 Students Taking an Exam at the House of Wisdom



# FIGURE 5 Haroun al-Rashid Playing Polo



#### FIGURE 7

The House of Wisdom in Baghdad



#### FIGURE 8 Ibn Sina



#### FIGURE 9 Ibn Sina's Canon of Medicine in Latin and Arabic



Here is Ibn Sina [**Figure 8**], who is not from Iraq, but from where Iran is presently. And there were many thinkers: al-Farabi, al-Kindi, Ibn Sina, who were really in the tradition of Plato, and carried on the work of Plato. Ibn Sina was also a master of medicine, and he had very advanced studies of the body. Here [**Figure 9**] is his work translated into Latin. Here [**Figure 10**] you see how his influence spread. As a matter of fact, Ibn Sina was so famous, and so advanced in terms of his medical studies, that it took until the 17th Century in Europe, before his knowledge was surpassed.

dous lack of infrastructure and industrial development; there is almost no agriculture, because of a total lack of water. You can fly for five, six, seven hours over this area of Northern Africa and the Greater Middle East, and you can look out the window and you do not see one green spot. I did this once, and I was looking, where are the oases? And there were none!

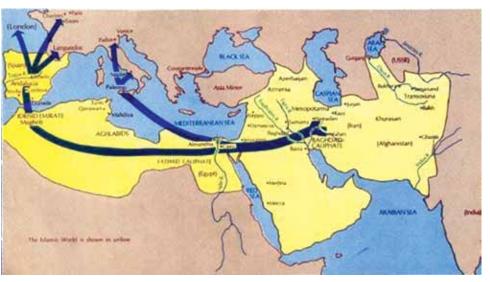
#### A World Land-Bridge

So therefore, what we have to do, is treat this whole region as a part of the World Land-Bridge. This is a

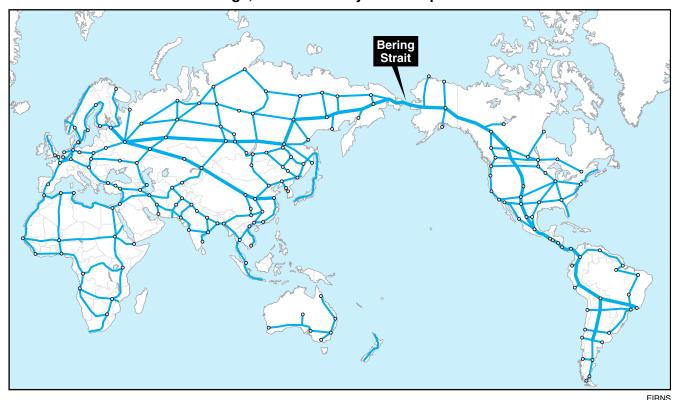
So, there is no reason why this Golden Age of the Persian and Arab Renaissance should not be revived. I mean, in the same way that European cultures are disconnected from their high points-Italy is not on the level of the Italian Renaissance; Germany is not on the level of its own Classical period; but there is no reason why not only Europe, but also the Arab, Persian, Islamic world cannot revitalize on a modern level, but by connecting with the roots of its earlier Golden Age.

There is just a tremen-

FIGURE 10 The Islamic World and the Spread of Ibn Sina's Influence



#### FIGURE 11 Main Lines of a World Land-Bridge, as Sketched by H.A. Cooper



concept, which grew out of a proposal which was made by Mr. LaRouche and myself in reaction to the collapse of the Soviet Union, and our first proposal, which we presented in 1991, was the idea to connect the population and industry centers of Europe with those of Asia, through so-called "development corridors." And we used, after studying it in depth, the existing lines of the Trans-Siberian Railroad and the old Silk Road, because they, for geographical reasons, were just the optimal locations; and we proposed to have intensive cooperation of all the countries of the Eurasian Land-Bridge.

This was our idea of a peace order for the 21st Century. In the beginning, and we had literally hundreds of seminars and conferences about it. People said, "Yeah, this would be a nice ide0a, but it's utopian. Who should finance it?" But it grew into the World Land-Bridge [**Figure 11**], which is right now developing, is being realized, and what was only an idea in the beginning, is now in different degrees of realization by the governments of China, Russia, South Korea, and others. And basically the idea is to take the Middle East development program, as an extension of this World Land-Bridge.

Because, what I'm saying here, and what will be developed further, also later by Hussein Askary, can only work if we can convince the governments of Russia, China, India, Iran, hopefully some European nations and hopefully a United States which has abandoned the policy of Anglo-American special relations, and returned to the policy of John Quincy Adams, of a perfect alliance of perfectly sovereign countries—and then it can be realized.

#### War on the Desert

Now, the first priority has to be a war on the desert, because one of the biggest problems in this region is the lack of freshwater, and for that we have to focus on three key problems: One is the diversion of the Arctic to Central Asian water flows, but also such projects as the Turkish GAP project [**Figures 12a-b**], and the Peace Pipeline of Turkey, which was never realized. It must include the Oasis Plan, which has been proposed by Mr. LaRouche since 1974. It must especially focus on nuclear-powered desalination, and underground water reservoirs.

The approach has to be the same as what we proposed with the North American Water and Power Alliance (NAWAPA), which would be the largest infrastructure project ever undertaken by mankind. The idea is to take the waters flowing into the Arctic Ocean and bring them, through a pump system, along the Rocky Mountains all the way into Mexico. That would immediately create 6 million jobs. This is under active consideration right now in the U.S. Congress as a result of our work.

Now, the idea about it, is to have a human intervention, to upgrade the biosphere through the redirection of the flows of water in great amounts, causing vegetation to develop, and then, with the aid of the work of photosynthesis, water evaporates from the vegetation, it affects cloud formation, new rain patterns, and new regional weather patterns.

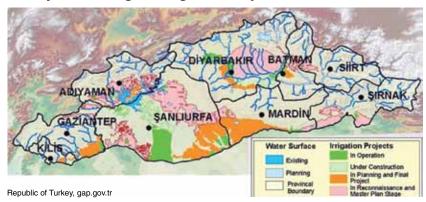
I only want to identify some key projects which will be later elaborated by Hussein, but just to set the framework for what I'm going to say afterwards: First, we want to have the Aral

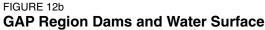
Sea basin developed, because the Aral Sea has shrunk to 10% of its former size, and this presently is an acute problem for all the countries of Central Asia [**Figure 13**]. This was the result of depletion through the monocultures in the Soviet era, and it has turned most of these countries into salt wastelands, where wind storms redistribute salt in the lands of Kazakstan, Uzbekistan, Turkmenistan, and hurts agriculture and the health of human beings.

Secondly, we want to have a major river diversion project, for example, to redivert the water from the Pechora River, which flows into the Arctic Sea, into the Volga River via Kama. And this will eventually pump 19 km<sup>3</sup> of water into the Caspian Sea system of canals, into the Caucasus region. This was a project already on the drawing boards during the Brezhnev era, and at that time, the cost estimate was only \$4 billion, which obviously is not a lot. But this project was then totally killed during the Gorbachov period.

We also want to have the Rivers Ob and Irtysh redi-

FIGURE 12a
Turkey's GAP Region Irrigation Projects





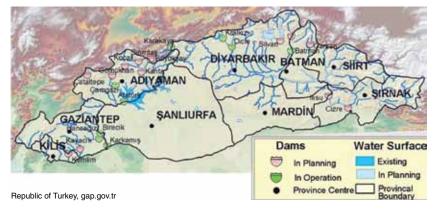


FIGURE 13 The Aral Sea, 1989-2008



July-September 1989

Oct. 5, 2008 Wikipedia Commons

FIGURE 14 Turkey's Atatürk Dam



since this region is already well connected to the Eurasian rail line which goes through Mashhad. The Iranian government already has initiated several of these projects, to fight the spread of the desert, and is working with the Central Asian countries. The Iranian government wants to build waterways for ships between the Caspian Sea and the Persian Gulf, and there are other well-defined projects, some underway, some in the drawers, and some only in the minds of engineers.

For example, there is

this project called the

Republic of Turkey

rected through a 2,550-km canal, lifted 300 meters up through a system of six pumps into the Aral Sea. This will then also go to the Sib-Aral Canal. At the beginning, only 7% of the discharge of these two rivers will pump 27 km<sup>3</sup> of water into the Aral Sea, and in the second phase, 60 km<sup>3</sup> through enlarging the canal to be able to carry larger ships.

Then, following the Turkmen Canal, for ship travel from the Black Sea via the Don-Volga Canal, we want to build the Eurasian Canal across the Russian part of the Caucasus, to Afghanistan and the Aral Sea. Then, Central Asia will be connected to the Atlantic via the Mediterranean, and to the Indian Ocean and through the Suez Canal and to the Atlantic through the Mediterranean. This then, will not only function for shipping, but also for diversified agriculture, because cotton is the most water-intensive crop, which really should not be grown in these areas.

If this happens, the Aral Sea will be rich, filled with fish populations again, as it used to be, and irrigation of the area will also moderate the climate.

Another project is an underground pipeline, of 4-5 meters in diameter, which will draw water from the Turkmen Canal into the very fertile Caspian central area of Iran. Water should be pumped over the Alborz Mountains into central Iran, to central Iranian cities west of Mashhad. This pipeline can be built rapidly, Turkish GAP, which goes through southeastern Anatolia, and this is modelled on the Tennessee Valley Authority project. It started 22 years ago, and eventually will have 22 dams for electricity, water management, irrigation, and flood control. It will be in the southeast of Turkey, and it will include 10% of the land area between the Euphrates-Tigris Basin and the southeastern plains. Eventually it will make possible 1.7 million hectares of land for agricultural use.

This area is located on the borders of Turkey, Syria, Iraq, and Iran, with a heavy Kurdish population, and this is obviously now one of the crucial hot spots of the crisis. But the development perspective is the only way that peace can come to this region, and it is a very, very impressive project.

The centerpiece of this GAP is the Atatürk Dam [**Figure 14**], which is one of the largest in the world: It brings water into the plains of Harran, Mardin, and Ceylanpinar, making possible enhanced production of agriculture and industry.

In 1993, during the Oslo Accords, there was an Arab-Israeli peace process going on, and the idea came up of the Turkish Peace Pipeline. This never materialized, but it was the idea of moving water from Turkey to Israel and Palestine, Jordan, to the Arabian desert states of the Gulf region, and then a western pipeline into the Seyhan and Ceyhan rivers, which are now flow-



ing unutilized into the Mediterranean at Adana, through separate pipelines. One would be in the west, through Syria, Jordan, Israel, Palestine, and one to Saudi Arabia, which will eventually be 2007 km long; and one in the east, through Syria, Iraq, Kuwait, and other Gulf States—altogether, 3,900 km long. And they will carry 16 million m<sup>3</sup> of water a day.

Now, in 1975, Mr. LaRouche travelled to Baghdad for an annual celebration of the Ba'ath Party, where he had the opportunity to talk to many leaders of the Arab world, and he toured some of the previous irrigation systems of Iraq, and he came back with the idea of the Oasis Plan [**Figure 15**]. This is the crucial idea of using nuclear power plants for large-scale desalination of large amounts of ocean water.

Presently the International Atomic Energy Agency, the government of Iran, the Gulf Cooperation Council, and France have made various studies of the cost and efficiency of having desalination plants run by nuclear energy, rather than by gas. Iran presently is the only country in the region (other than Israel) which has a large civilian nuclear power plant, in Bushehr, which was worked out through the collaboration of Iran and Russia. The original design by Siemens from the early 1970s also had the idea of large-scale water desalination plants, which are not yet included, and Iran is planning several new nuclear reactors, including for desalination of seawater.

The United Arab Emirates have presently an agreement—the Emirate Nuclear Energy Corp. (ENEC), established in 2009 in Abu Dhabi, has a deal with South Korea to build, together with the Korea Electric Power Corp. (Kepco), four nuclear plants; that would bring 1,400 MW nuclear energy to be ready by 2020. The first one was started in July 2012. The Saudi government has plans to build 16 nuclear plants by the year 2030. The United Arab Emirates-South Korea cooperation includes the training of Emirati engineers in South Korea. In Saudi Arabia, the original in-

tention of the King Abdullah City for Atomic and Renewable Energy included a training program, and this is not really continuing as far as I know; presently, the Achilles' heel of Saudi Arabia is the almost total reliance on foreign labor and expertise.

It is very obvious, that if the LaRouche Oasis Plan of 1975 had been implemented, a lot of bloodshed and misery would have been prevented. At different times, leaders of both Israel and Palestine agreed with La-Rouche to go in this direction. For example, then-Israeli Foreign Minister Shimon Peres and Prime Minister Yitzhak Rabin, in 1985, launched a campaign for a Marshall Plan for the Middle East. In '93, when the Oslo Accords were signed, the world came very close to the potential realization of these plans. But, there was a big problem: As Lyndon LaRouche had emphasized, this peace plan could only have success, if immediately, the population in the impoverished region, especially in Palestine, would immediately see earthmoving machines begin to work, so that the population could have a perspective of a better future.

This was totally sabotaged by the World Bank and the international community. The World Bank had a conference on Sept. 20, 1993, and explicitly refused the funding for large infrastructure projects, water, and energy. Peres and Rabin at that time talked about a budget of \$50 billion to get this program going. Now, \$50 billion, compared to the approximately \$25 *trillion* which was used to bail out the American banks alone, shows you the proportion of these things!

What we have to do, is, we have to have the extension of the World Land-Bridge into this region, and it must go together with other crucial infrastructure projects, such as greening the deserts through water management and building transport lines. The Gulf Cooperation Council states are already building internal railway networks, which are supposed to be finalized by 2017, and there are studies to connect Saudi Arabia to Egypt, through the south Aqaba Gulf, through Sinai. This had been underway for years, but was interrupted by the crisis.

The objective of this project is to build rail connections, among other reasons, for the travel of Muslim pilgrims from North Africa by air, sea, and land. Another project is the Bab-el-Mandeb Strait Bridge between Yemen and Djibouti. This plan was made by a Danish firm; it basically collapsed with the collapse of the Dubai real estate bubble, but it could be the most important land connection between Asia and sub-Saharan Africa. The idea is also to build a bridge or a tunnel across the Strait of Hormuz, and to renew the more than 100-year-old conceptualized Ottoman-German al-Hejaz Railway, which connects the holy cities in western Arabia, to Turkey and through Jordan and Syria. The Berlin-Baghdad Railway does exist, and the idea is to extend it to the Gulf province of al-Hejaz, but it must be urgently modernized. Saudi Arabia has plans to connect to the Iraq railway, and Iran has already connected a rail line from Bandar Abbas, the port in the Gulf, to Turkmenistan through the Mashhad-Sarak connection, which was established in 1996, which reestablished the old Silk Road.

This connection from 1996 was a major break-through.

This occurred when, in Beijing, there was the large conference with 34 countries participating, discussing projects for the 34 regions along the Eurasian Land-Bridge, and at that time, Beijing declared that to be the long-term strategic perspective for China. It was then interrupted because of the Asia crisis in 2007-08, but the Eurasian Land-Bridge is now fully back on the agenda.

Another line between Russia, Iran, and Azerbaijan, through the Caucasus to Europe, is underway.

Presently, individual countries have various projects in progress. Some are collecting dust in the drawers, and others are not even yet worked out in feasibility studies.

# Take It from the Top

How do you solve the problem, that you have some rich countries which have a complete lack of developed labor; some countries are very poor; some have an educated workforce but a lack of resources—how do you get development for the region as a whole? What you have to start with, is a unified conception, a vision of how this region should look in 20, 40, or even 50 years. And then, decide among all the governments involved, to pursue this development as a conscious war-avoidance strategy. There have to be preparatory conferences by the transport and science ministries, and they have to work out the details of this plan, which we only sketch out here, and then it has to be announced to the people of this region, as the intention.

There should be a declaration in the tradition of the Tehran Conference of 1943, where Franklin D. Roosevelt had his personal representative, Gen. Patrick Hurley, present a declaration regarding Iran, which promised independent sovereignty and territorial integrity to Iran.<sup>1</sup> FDR also commissioned an economic development plan and assistance in the building of the economy afterwards.

I take now a quote from this Tehran declaration, but I change it so that it does not concern only Iran, but the whole region, and I'll only change three words:

"The inauguration in all the countries of the *Greater Middle East*"—instead of Iran—"of the American pat-

<sup>1.</sup> See *History* section in this issue-ed.

tern of self-government and free enterprise, will be an insurance that the proceeds from development of the resources of the countries of the region will be directed substantially to the building of schools, hospitals, sanitary systems, irrigation systems and improvement of all facilities contributing to the health, happiness, and general welfare of the people of the region. This plan of nation building may be improved through our experience in the region, and may become the criterion for the relations of the United States towards all the nations which are now suffering from the evils of greedy minorities, monopolies, aggression, and imperialism."

All that is necessary is that the United States goes back to its tradition of the Founding Fathers, of Benjamin Franklin, of Lincoln, of John Quincy Adams, of Franklin D. Roosevelt, and there *is* a strong tradition of that in the United States!

### A Credit System, Not Monetarism

The question naturally arises, who should finance this? One could polemically ask the question, what is it worth to avoid the extinction of civilization, which would occur if this is not implemented? I can assure you, it will never be built in the world of the old paradigm of globalization, because that system is about to disintegrate in a hyperinflationary explosion.

Therefore, this system has to be replaced by a credit system in the tradition of Alexander Hamilton, the first Secretary of the Treasury of the United States, and by the formation of a National Bank.

This policy was echoed by the Reconstruction Finance Corp. of Franklin D. Roosevelt; it was used by the Kreditanstalt für Wiederaufbau to develop the Marshall Plan in Germany in the postwar period, and with the help of this policy, Germany was turned from a rubble field in 1945 in only a few years, into the famous German economic miracle, which has been admired by the whole world.

What needs to be done, therefore, is that each participating nation establishes a National Bank, which give credit lines for these clearly defined projects. And then you need a multinational, long-term agreement between the governments, and that multinational agreement does represent the new credit system. The credits must be long-term and low in interest rate, and they must be entirely determined by criteria of physical economy, and lead to the maximum increase of energy flux-densities, which automatically means that, for example, oil will not be used for fuel purposes, but as a resource for chemical production.

We are not looking, explicitly, for foreign investments, but the credit system will provide credit for future production of real physical goods. This is a concept understood by almost nobody, but this policy of credit lines for future production, as compared to bailouts for past debt, is very crucial to understand.

There is a very good chance that in this interim period, between now and the new year, when the new Congress comes into office, that the chance exists that in the United States, the Glass-Steagall law will be reimplemented. There is presently motion in the whole country, not only in the U.S. Congress, in the Senate, but also among many regional savings banks; even the Republicans have a big drive; some people from Wall Street, even some people in the City of London, have recognized that all these rules—the Volcker Rule, the Vickers Commission, the ring-fencing—all these watered-down versions have not functioned, and that only a full-fledged return to Franklin D. Roosevelt's Glass-Steagall Act, can solve the problem.

If that happens, the commercial banks will be put under state protection, and the investment banks will have to clear their books on their own, without having access to the savings accounts of the commercial banks or being bailed out by taxpayer money. And then, it is very likely that some of these banks will have to declare insolvency.

At that point, you need a credit system, because there will not be enough liquidity around for the economy to function. Credit lines for future production, as compared to hyperinflationary bailout packages for past debt, will come into play.

This goes back to the conceptual policy of Friedrich List and the Customs Union, German economic development in the 19th Century. And it was Friedrich List, who in his writings made the very clear difference between the British and the American System of economy. The British system, as he describes, at great length, is based on monetarism, free trade, "buying cheap and selling dear," which is the present system of the World Bank, the IMF, the WTO, and all the leading financial institutions, and they are about to go bankrupt.

The second system, the American System of economy, is totally different: It goes from the assumption that the only source of wealth is the increase in productivity of the labor force, and that it is therefore in the interest of the state to develop the cognitive powers of its citizens, in the best possible way.

This American System was then continued and elaborated further by Henry C. Carey, who was the economic advisor of Lincoln, which he outlined in his *Principles of Political Economy*. And also, almost not known, is the fact that through the influence of the U.S. ambassador in Berlin, George Bancroft, and the friend of his youth, John Lothrop Motley, and Wilhelm von Kardorff, who was the founder of the Central Association of German Industry, German Chancellor Bismarck became a believer in the American System of protectionism, and became a follower of Carey and List.<sup>2</sup>

The reason Germany developed in the end-period of Bismarck and after that, very quickly, from a feudal economy to one of the leading industrial nations in the world, was because of that: Bismarck rejected free trade, rejected monetarism, and went into state protection of the building of the state.

The same thing occurred in Japan, with the Meiji Restoration. Japan was isolated for many centuries after it had kicked out some Jesuit and other monks, and was completely cut off from the rest of the world. But then, in the middle of the 19th Century, some economists travelled to Germany and to Holland, and they got acquainted with the writings of Friedrich List and Henry C. Carey, and they implemented it in the Meiji Restoration. And in a few years, also Japan became one of the leading nations of the world.

Also the industrialization of Russia, under Count Witte, who was an avowed follower of Friedrich List, occurred exactly in the same way.

What I'm saying now goes totally against the present policies, and it goes totally against the so-called *1980s Project* which was launched actually in '75, by the Council on Foreign Relations, and the Trilateral Commission, which had a project on "the controlled disintegration of the world economy." They worked on about 22 studies, which were all published by McGraw-Hill, and the basic thesis was to never allow the Japan model again. At that time, they said, one has to prevent socialism from merging with mercantilism, which was the key-and-code word for industrialization of Third World countries.

# The Strategic Defense of Earth

The problem is, if we don't stop this kind of colonialist thinking, we are not going to make it as a species. Therefore, what we have to do, is to make a conscious jump in the evolution of mankind: Rather than squabbling over limited resources, and pursuing supposed "geopolitical interests," we have to, at this grave hour in history, define the common aims of mankind.

While the Middle East is one area where this paradigm shift has to occur, the second large area is other threats which are threatening the planet as a whole. You have the danger of thermonuclear weapons, the U.S.-NATO missile defense system, which is regarded as unacceptable by Russia; and that has to be approached in the way that the present Deputy Prime Minister of Russia, Dmitri Rogozin, has formulated it, with the Strategic Defense of the Earth.

Now, LaRouche and a team of young scientists have worked out a conception which is in the tradition of the Strategic Defense Initiative, which my husband had proposed at the end of the 1970s into the beginning of the '80s, which was a comprehensive proposal for the replacement of nuclear weapons, through [anti-ballistic-missile defense] weapons based on new physical principles, which later became the SDI. As a matter of fact, President Reagan announced it to be official American policy on March 23, 1983. It was rejected by the Russian government at that time, with the argument that it would bring more advantages to the West; but since Reagan had proposed two times that there be American-Soviet cooperation by the application of these new physical principles in the civilian economy, therefore, the argument of Russia at that time was not valid.

At that point, Mr. LaRouche had said, if the Russian government sticks to the rejection, it will disintegrate in five years. Nobody believed that, but history has proven it: The Soviet Union did disappear as a result of this rejection.

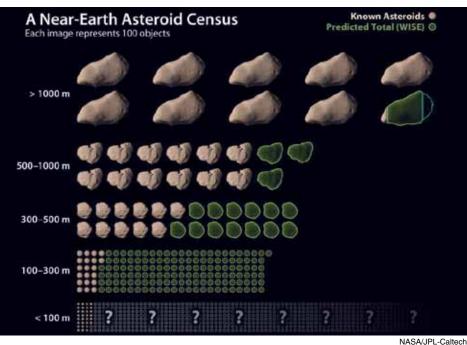
Now, this SDE proposal, LaRouche has now, with his team, developed into a strategic defense of the planet, not only from thermonuclear missiles, but also from the growing danger of the impact of asteroids and comets, where mankind does not have yet a feasible

<sup>2.</sup> See Helga Zepp-LaRouche, The American Roots of Germany's Industrial Revolution, *EIR*, Sept. 12, 2008.

#### FIGURE 16 Power of Asteroid/Comet Impact on Earth

Asteroid /Comet Size (Meters)	Energy Released (Megatons TNT)	Effects of Impact or Comparable Events	
30	2	Fireball, Shockwave, Minor Damage	
50	10	Comparable to Largest Thermonuclear Weapon in Existence	
200	600	Destruction on a National Scale	
500	10,000	Destruction on a European Scale	
1,000	80,000	Global Effects, Many Millions Dead	
5,000	10 Million	Global Climate Change, Billions Dead	
10,000	80 Million	Complete Extinction of the Human Specie	
		NASA/JPL-Calte	

#### FIGURE 17a



#### FIGURE 17b Near-Earth Asteroids

This chart shows the percentage found (tan) of the estimated total population (green) of near-Earth asteroids of various size categories. Image credit: NASA/JPL-Caltech

Size Range	Estimated Population	Number Found	Percentage Found
1 km+	900	850	94%
300m to 1km	4,800	2,400	50%
100 to 300m	21,000	2,100	10%
30 to 100m	~500,000	~1,950	0.4%

NASA/JPL-Caltech

technology to avoid that, but also early warning systems against earthquakes, extreme weather, volcano eruptions, and so forth.

All of these are threats which are not specific to any one nation. But the survival of the entire species depends on our ability to either control or adapt to these processes.

Earlier this year, two small asteroids flew by the Earth at only a 14,000-km distance. This coming February 2013, the asteroid with the name 2012DA14, which has a diameter of approximately 45 meters and weighs 14,000 tons, will also fly by rela-

> tively closely; it probably will not hit Earth, but it can become a real danger for the very many satellites which are circling the Earth.

> Now, a larger rock, 2011AG5, will pass Earth in 2023 and 2028. In 2040, it could come to an impact of an asteroid with 140-meter diameter, which could lead to the destruction of a middle-sized nation.

Now, the impact of an extremely large object, of about 10 km diameter, created a 180-km diameter crater in Chicxulub, in the Yucatan Peninsula of Mexico. It is a good hypothesis that this impact created the conditions for the elimination of not only the dinosaurs, but over 80% of all species. The most recent large

ASA/JPL-Caltect

impact occurred in Tunguska, Siberia, in 1908: This was only an object of about 30-50 meters across, but it created a crater larger than the area of greater New York City.

Here you see [Figure 16] the asteroid size as compared to the energy released, and the effect of the impact, or comparable events, and you can see that already with 10,000 km, you have the complete extinction of the human species. And, here [Figures 17a-b] you see that only a certain small

number of these asteroids are known. There are many asteroids whose location is not yet on the radar screen.

FIGURE 18

The Curiosity Mars Rover

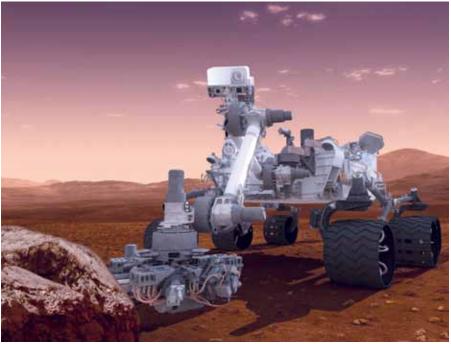
As of now, as I said, there is no method to protect the planet Earth, and it is obvious that these asteroids don't respect the Schengen agreement,<sup>3</sup> or other border agreements, so does it not make sense to form an international cooperation to defend mankind against such threats?

This afternoon, we will have the opportunity to hear from the one of the participants in the IGMASS conference, which took place in September in Ukraine; IGMASS stands for International Global Monitoring Aero-Space Systems, and we will hear what is the status of research at that point.

Now, following the earthquake and tsunami hitting the area of Fu-

kushima on March 11, 2011, obviously, not everybody in the world reacted so insanely to this event as the German government. Rather than exiting from nuclear energy, without adequate replacement, and going into the utopia of "decarbonization of the world economy," which is the formulation used by the Potsdam Institute for Climate Research and Mr. Schellnhuber, the Commander of the British Empire, as he proudly calls himself, a decarbonization of the world economy—meaning, getting rid of not only nuclear but also gas, oil, and so forth—would only mean a carrying capacity of 1 billion people!

Contrary to this insane German policy, many nations increased their research into seismic precursors for earthquakes, volcanic eruptions, but also spotting large fires, extreme weather, and integrating the investigation into the interaction of different effects, which occur before such earthquakes. For example, anomalies in gravitation, special effects in the ionosphere, exit of gases from the Earth's crust, changes in the temperature



Artist's rendition, NASA/JPL-Caltech

of this crust, instability of the rotation of the Earth, and other such geoeffective phenomena, like the activities of the Sun, and so forth.

#### **The Extraterrestrial Imperative**

Obviously, we need an integrated system of such early warning systems, and the next leap in the evolution of mankind also requires, for that same reason, manned space travel, for the same reason that rocket scientist Krafft Ehricke, who participated in the Apollo program, proposed what he called the "extraterrestrial imperative." Now, he had this beautiful development, showing how evolution occurred by life developing out of the oceans, and conquered the land with the help of photosynthesis, and then, when man appeared, the first settlements occurred on the coasts of the oceans and the mouths of rivers. Then, with the help of the development of infrastructure, man started to build roads, canals, and conquer the interior of the land. Then with the invention of railways, mankind was able to more deeply penetrate the continents, a process which we are still in the middle of, as we saw concerning the lack of infrastructure in the Greater Middle East.

<sup>3.</sup> The 1985 agreement in Europe on the gradual abolition of Customs checks at the borders. It was later incorporated into the European Union's legislation—ed.



NASA

Krafft Ehricke had the conviction that the next necessary step for this evolution has to be the colonization of space, especially manned space travel: at the beginning, in the so-called Near Abroad, Moon and Mars, but later in the future, beyond that. Now, with the landing of the Mars rover Curiosity [Figure 18], we have a fantastic preview of the future capability of mankind. With only 14 minutes delay-that is, the amount of time it takes for the signals on the Earth stations to arrive at Mars-we can now have sense-impressions on Mars. We can see, hear, speak, we can have experiments with lasers, we can investigate the properties of Mars, we can now see the experiments of this rover, and this gives us a tremendous reason for optimism. An optimism which has not existed since the Apollo program, when, if you had asked young people at the time what they wanted to become, many times, they would have answered, "I want to become an astronaut, a cosmonaut. I want to develop these things." And this can now be put back on the agenda.

Mankind is the only species capable of discovering ever new physical universal principles, universal principles in science and Classical art, and the truth does not lie in so-called sense-experience, but in the process of the progress in the knowledge of these principles. What enables man to continuously perfect this process, is his innate capacity for creativity. Nicholas of Cusa, the great philosopher of the 15th Century, called this the *vis creativa*, the creative power of man: When man is creative, he discovers new principles which correspond to the real laws in the physical universe, and he can upgrade the biosphere through the intervention of the noösphere, as Vladimir Vernadsky put it.

The fact that man can discover these principles is the proof that there is a coherence between the lawfulness of the creative mind, and the laws of creation of the physical universe. Because if an immaterial idea, a hypothesis, a thought, leads to changes and improvement of the physical universe, then such a cohesion must exist; otherwise, it would not work.

This is also called natural law, and you can violate this natural law, the order of the universe, for certain periods, but you cannot do it for an extensive period, or the laws of the universe will strike back at you! We are now at such a point, where a continuous violation of the laws of the universe, the nonapplication of creativity as the basis for our daily procedures, is becoming a threat.

We now face the total moral test of mankind: Are there enough human beings, in light of the possible extinction through thermonuclear war, who are capable of responding in this way?

We are being tested: Do we have enough people who are working together for a plan which clearly shows a way out? Can you help us, and be part of a mobilization to convince the governments of the world to abandon a narrow-minded, geopolitical confrontation, and make the kinds of the changes which are necessary to guarantee the survival of the human species? I know that this is possible. I know that the human mind is absolutely capable of making such leaps, of thinking things in the imagination like a great composer, like a great poet, like a great artist. And I think that we need to have the collaboration of the wise people of the planet, of the scientists, of the artists, for a common purpose, and the common survival of civilization.

I don't want to belittle the danger, because the danger is absolutely gigantic. I think if most people knew how close we are to the edge of thermonuclear war, they would not sleep. And I don't want you to go away from this conference, and sleep! I want you to be upset! I want you to be *totally* upset and worried, because only that will give you the energy to help us, to try to change this.

And the reason I am optimistic anyway, and in spite of this, is because if you would have shown the picture of Curiosity to a Stone Age man, the Stone Age man would have probably said, "Bah! You are crazy, it does not exist!" Well, this is only a couple of thousands of years ago, and if we do these projects, what I laid out to develop a level of reason in international politics, a plateau of cooperation among nations, then, I think if you just think where mankind can be 1,000 years from now [**Figure 19**], mankind can be more developed than the comparison with the Stone Age man, today.