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Archytas's Construction for Doubling the Cube

Archytas developed a construction to find two geometric means between two magnitudes, AC and AB. Magnitude AC is drawn as the diameter of circle ABC; AB is a chord of the circle. Using this circle as the base, generate a cylinder. The circle is then rotated 90° about AC, so it is perpendicular to the plane of circle ABC; it is then rotated about point A, to form a torus with nil diameter. (The intersection of the torus and the cylinder produces a curve of double curvature.) Chord AB is extended until it intersects the perpendicular to AC at point D; this forms triangle ACD, which lies in plane of circle ABC, AB, and AC. Triangle ACD is then rotated around AC, producing a cone. The cone, torus, and cylinder all intersect at point P. Perpendicular PM is then dropped from P along the surface of the cylinder, until it intersects circle ABC at point M; this forms right triangle AMP. Through this construction, a series of similar right triangles (only partially shown) is generated, which produces the continued proportion, AB:AM::AM:AP::AP:AC. Thus, AM and AP are shown to be the two geometric means between magnitudes AC and AB.

Bringing the Invisible to the Surface: The Legacy of Plato

Aphysical concept of magnitude was already fully developed by the circle associated with Plato, and expressed most explicitly in the Meno, Theatetus, and Timaeus dialogues. Plato and his circle demonstrated this concept, pedagogically, through the paradoxes that arise when considering the uniqueness of the five regular solids, and the related problems of doubling a line, square, and cube. As Plato emphasized, each species of action generated a different species of magnitude. He denoted such species by the Greek word *dunamis*, the root of the English 'dynamo,' translated as 'power.' The meaning of the term dunamis is akin to Leibniz's use of

the German word Kraft.

That is, a linear magnitude has the *power* to double a line, whereas only a magnitude of a different species has the *power* to double a square, and a still different species has the *power* to double a cube. In Bernhard Riemann's terminology, these magnitudes are called, respectively, simply-extended, doubly-extended, and triplyextended. Plato's circle emphasized that magnitudes of lesser extension lacked the potential to generate magnitudes of higher extension, creating, conceptually, a succession of higher powers.

Plato's circle also emphasized, that this succession of magnitudes of

higher powers, was generated by a succession of different types of action. Specifically, a simplyextended magnitude was produced from *linear action*, doubly-extended magnitudes from *circular action*, and triply-extended magnitudes from *extended circular action*, such as the rotational actions that produce a cone, cylinder, or torus. Plato's collaborator, Archytas, demonstrated that the magnitude with which a cube is doubled, is not generated by circular action, but by extended circular action, i.e., conic sections.

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[SEE 'The Fundamental Theorem of Algebra: Bringing the Invisible to the Surface'] "It is through beauty that one proceeds to freedom." —Friedrich Schiller

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Fidelio is dedicated to the promotion of a new Golden Renaissance based upon the concept of *agapē* or charity, as that is reflected in the creation of artistic beauty, the scientific mastery of the laws of the physical universe, and the practice of republican statecraft for the benefit of our fellow man.

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On the Cover

Nike Unbinding Her Sandal (detail) (Temple of Athena Nike, Acropolis, Athens, c. 410-407 B.C.). Mid-motion-change: what is going to happen. (Nimatallah/ Art Resource, NY)

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LaRouche Launches Revolutionary Youth Movement— For a New Renaissance!

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Lyndon LaRouche's International Youth Movement

This Double Issue of Fidelio is devoted to the creation of Lyndon LaRouche's International Youth Movement, as the lever for transforming a world in the throes of economic depression and on the brink of perpetual war. Lyndon LaRouche addressed the following edited remarks to approximately 85 young people from the East Coast of the U.S.A., who attended a two-day conference on November 2-3, 2002.

our parents' generation, generally, has withdrawn from reality, and are living a kind of Baby Boomer fantasy life, a state of denial,

trying to imagine that they're happy; and very rarely are they happy.

We're a dying society. We are a consumer society. And if

you compare the ideas, the behavior, of people in your parents' generation, and what's going on in your generation; and you look at the moral degeneration of your parents, and what they were 20 years ago,— if you look back on them 20 years ago, you would say they were vibrant, active, and more like you. In the past 10-20 years, they've gotten prematurely old.

You, in your generation, can only defend yourself by becoming leaders. You have a bunch of dormice—your parents' generation. Maybe not your particular parents; but the generation is hopeless. You know, it's like *Alice in Wonderland*, where the dormouse keeps drowning himself in the teacup; the Mad Hatter has to intervene to pull him out so that he doesn't drown himself. Your parents are like that. They're dormice—not all of them, but some of them. What do you do? You are the future. You're not the future itself; the future is your children. What kind of a life, what kind of a nation, what kind of a world are you going to give them?

Now, you can't give that to them all at once. Because, it's going to take a quarter-century to build this country out of the mess we're in, economically, right now. But you can, potentially, as leaders of a new generation, create the circumstances which will enable the children of your generation to succeed. And people will honor your generation for centuries to come because of that!

Now, you need the help of your parents' generation. But they're off sleeping like the dormouse in the teacup, drowning themselves in their delusions. You have to do what has been done before: The reason that youth movements create revolutions, is because the youth, when faced with a prospect of no future, or a very bad future, say, "Well, we can't change everything. But we can get out there and begin to organize our own generation, and our parents' generation, to waken them, to act to get us all out of this mess."

In other words, you have to change your parents. You have to educate your parents. You do it largely by example. You do it by doing the right thing. And that shows them that something is possible in this society, because you're doing it. Because, no matter how stupid they are, they know that you are the future. When

EDITORIAL

push comes to shove, when they're facing the grave, they're going to say that what they have, going into the grave, is what they've left

behind in the form of your generation.

Now the problem is, that most individuals fail because they fail morally. They don't have that sense of identity. We're all going to die. It's inevitable. Mortality is mortality; it means ultimate death. So therefore, what is your interest in life, if you know you are going to die, sooner or later? The pleasures you get out of mortal life? No, of course not. The money you get? No. All of these things disappear the minute you go into the box.

What's important is, what is the meaning of your mortal life? What are you doing for humanity? It's what you would demand of a President. You want a President who is not concerned about his personal self-interest. You want a President who says, "I am the guy you can rely upon, to make a decision based on the interest of coming generations, as well as the present generation, the present nation."

Now, that is the basis for leadership. Political leadership has to come on a somewhat higher level than the simple personal sense of immortal identity. You have a mortal existence, but that mortal existence must have an immortal identity. What you have done must be meaningful for society after you're dead, whether in terms of a few people, or the society as a whole.

The Eyes of God Upon You

In a President or another leader of society, you want a higher standard. The individual who is capable of being consciously dedicated to the future of that nation, the world, and humanity.

That's what motivates a scientist. His sense of identity requires that he be involved in discoveries, even if it takes decades to realize the discovery on which he had been working. His identity is located in what he contributes of permanent value to humanity.

What you require of political leaders is exactly the same thing—a long-term dedication to the future of society. The problem in society is that so few people, so far, in known human existence, have more than momentarily achieved that sense of immortality within mortality. And therefore, when it comes to pressure someone says, "Look. I know you believe what you're doing. But don't you think it would be in your interest to compromise?"

How is this possible? It's only possible if your sense of the immortality of your mortal life is lacking. Because when people think about God, they say, "The eyes of God are looking at me. And whatever I do is seen. And my immortal value is what He sees. And I must see that in myself. And I must act accordingly." That's all there is to morality. There is no other morality. Imagine the eyes of God upon you. Are you doing something that is constructive, that is honorable, and will be honorable for the rest of eternity? If you have that confidence, you are unbeatable!

You have to realize that a youth movement is not simply a collection of young people. We have a situation in which there is no educational system worth mentioning in the world today. But a youth movement, the way I've tried to indicate to you, with examples such as the fundamental theorem of algebra, a youth movement is a university. It's a movement of action, and it's also a university. By working together around things of relevance *to humanity* and saying, "We need to know those ideas which are necessary for us to be effective in the world."

That's a university. You have to be, in a sense, a university on wheels, a university of political motion. We have a commitment to immortality. The immortality in mortality. We have a commitment to taking the poor fellow out there, who has no sense of life, who is desperate, and is about to commit suicide, and give him a sense that in their life, there's something which is *immortal*, which they must not sacrifice, while immortal. They must use their mortality with a sense of being a human being. Not simply in a passing moment of time, but in the expanse of humanity as a whole. What does the rest of humanity think about you, from the past, in the future, as well as the present? They depend upon you. What about all those people who suffered in the past from a grave injustice? Aren't they looking forward, implicitly, to someone among their descendants or others to come along and justify the life of suffering they lived?

You have to say: Here are people; they're human beings. Each one of them is capable of a quality of genius. The great crime is that they're denied that which is in them. We have to inspire them and help them to achieve that. And they will get infinite strength from the sense of what they are. It's what Martin Luther King represents. Martin Luther King is a Christian, in the true sense. Not one of these quirky, kookie kinds of things. A real one, who said, in his speech on the mountaintop, "I've been to the mountaintop. If I have to die, at the hands of my enemy for the sake of this cause, I will die. Because I must do this for humanity." It isn't just for the exslaves, or the descendants of slaves, it is for all humanity. Martin understood that. He understood what the sublime principle was: If you're truly a Christian, in his view, you must be for all mankind; you must be a leader, and you must put your life on the line for the sake of all humanity. And once you get that sense, and you get the joy of being that, then, you're undefeatable.

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How To Turn a Dark Age Into a New Renaissance

by Gabriele Liebig

Human history has been fueled by Renaissances, the turning points when crucial individuals have developed the new ideas needed to propel civilization out of a Dark Age. This was Friedrich Schiller's view of 'universal history,' and it is the standpoint from which we must undertake the task of saving civilization from its existential crisis today. Gabriele Liebig presented this class to a LaRouche Youth Movement seminar in California last January.



Charlemagne (742-814 A.D.)

St. Paul (died c. 67 A.D.) Engraving by Albrecht Dürer, 1514.





Homer (c. 750 B.C.)

Gottfried Wilhelm Leibniz (1646-1716)



Dante Alighieri (1265-1321)

ollowing the attacks of 9/11, a German newspaper published a fitting cartoon. The scene is during the evening TV news. Apparently, the husband has crawled under the living room rug, and his wife indicates to him, that it's safe to come out: "Darling, the news is over. What's left is only the weather report!"

Indeed, most events on the global stage fill you with horror these days. Economically and politically, humanity is undoubtedly sliding into a new dark age. Until last autumn, this had been a rather gradual downward-slide, but since September 11,



Solon of Athens (638?-?559 B.C.)

we see an accelerated rush into a global "war of civilizations." As Lyndon LaRouche, especially, has repeatedly explained, the events of September 11 and the ensuing drive for war, are a direct consequence of, and reaction to, the disintegrative process of the global financial system. Whoever denies that connection, will certainly not succeed in stopping the dynamic towards war, even if he may have the best intentions to do so.

The problem is, that most governments lack that broad historical perspective, which Friedrich Schiller termed "universal history." The same is true for most of the populations of Europe and the United States. The younger ones, who have never experienced a serious crisis, are rather in "denial," and don't want to hear about the crisis at all; while many older people, who have some sense







Lyndon H. LaRouche, Jr. (b. 1922)



Plato (427-347 B.C.)

Nicolaus of Cusa (1401 - 1464)

of things going down the drain, collapse into fatalism, which makes them susceptible to crazy, "endtimes" propaganda of various forms. In both cases, no measures are taken to take on the enormous crisis.

But, the fact that civilization is in danger, doesn't at all mean, that the end of history is nigh. History is older than the last thirty years, and humanity is larger than just the one country this pessimist is looking at. So, we must tell people: Open your mind's eye, look at the human population on this planet, and look at its history, universal history, and you will find that dark ages have been stopped, or overcome, before! Indeed, many times!

Dark Ages and Renaissances

In fact, Renaissances have always started during dark ages. And, contrary to what many people believe, history is not an automatic process. Both dark ages and renaissances are man-made. Dark ages happen owing to the evil intent of some, and the stupidity of many. Renaissances are the outcome of the conscious good intention of certain individuals with good ideas, and of their relevant activities, to organize the needed support for these ideas among their contemporaries, and to implement them.

What is a dark age? Dark ages are characterized by a spiral of economic collapse and endless war, deteriorating living conditions for the general population, which shrinks in numbers, and a breakdown of education and culture generally. Each generation knows and comprehends less than the generation before it, and after a while certain skills and arts may disappear and be forgotten altogether.

In a renaissance, this process is reversed, and more than that. Starting from the realm of ideas—those recovered from the past, plus new ones—culture and economy, education and the political organization of society, are put back on track. And, if it is a real renaissance, the level of culture and civilization will reach a much higher level than ever before.

Given the fact, that our dark age is well under way, even though it could get much worse, the question is: How do we turn a dark age into a renaissance? Already, in February 2001, after George W. Bush had entered the Presidency, Lyndon LaRouche wrote a paper with the title "Can We Change the Universe?," on that very question:

As a matter of principle, to what degree, in what manner, and by what means, can man gain foreknowledge of the method by which to wilfully change the current direction of his society's destiny, for the better, in specific ways? Even to overcome, thus, the worst sort of impending, seemingly inevitable catastrophe, such as the presently onrushing one?

Which adopted or implied axioms of present policyshaping behavior of our government must we replace, and replace with what? ... How shall we, then, select those aspects of implicity revolutionary, "free will" changes in the axioms governing policy-making, which represent a positive factor in shaping of history? ... By what voluntarist intervention, by the rest among us, can the necessary change in direction be brought into play?"¹

In order to answer those questions, LaRouche suggests the "historical method." And he proposes to make use of the ability, which is specific to the human mind, to communicate ideas—by way of reading and writing even with people who have lived many centuries ago. Therefore, in a way, we could go and ask the "makers" of former renaissances, how they did it. In doing this, we are of course limited by the knowledge and available written accounts about those periods of history. But, if we are not formalistic about the available sources, and if we have learned to grasp the ideas behind the written letters and words, then we can find out a lot using this approach.

"Much of the actual history of mankind in general is unknown to us," LaRouche cautions. And any excursion into history, of course, is limited by what we were able to investigate ourselves.

Homer

Very suitable for such excursions, is a vehicle similar to the "flying trunk" of Hans Christian Andersen's fairy tale. So, let's get into our "flying trunk," and set out for Ancient Greece 3,200 years ago, to the time when the war between Greece and Troy must have occurred, which the poet Homer later described in his epic The Iliad. The historians are still fighting atrocious battles over the question, whether this war ever occurred at all, or what else happened at that time.* However, there are good reasons and ample evidence to assume, that Troy did exist, and that it was a country in the northwest of Asia Minor named Wilusa, Wilios, or Ilios, which was allied to the Hittites of Asia Minor. Both the Mycenean culture of Greece, and the culture of Troy, disappeared around 1200 B.C. We don't know what exactly happened, but if we believe Homer's account, then it was a predecessor to the kind of "clash of civilizations," which the faction of Samuel Huntington and Zbigniew Brzezinski want to bring about today: Not only were both civilizations, that of Greece and that of Troy, destroyed in the process; they were also very similar, actually the same type of civilization. Just as the Christian, Jewish, and Islamic civilizations which are now supposed to go to war against each other, are deeply interwoven with each other going back many centuries.

^{*} See "Hypothesis and the Science of History," p. 43, this issue.

The circumstances of that war are still being investigated, but the result was a dark age of several centuries. The historians report that between the Twelfth and Eighth century B.C., the people on the Greek semi-peninsula lived in misery, the population shrank, people forgot many skills they had had before, for example, how to write, and how to navigate ships on the open sea, without sight of the coastline.

The first written documents that emerged after that time, were Homer's epics, which date from the Eighth century B.C. The older one, the *lliad*, describes the war against Troy, but not in a pacifist ("I don't go there") way, as it is full of praise for the courage of the heros on both sides, who were slain in that war. Hearing the story would make the listener rise above this war, to admire the highly developed culture it had destroyed.[†]

The Odyssey takes place some decades later. Also here, the beauty and prowess of the former culture of Crete and Mycenae are described: The island of Crete alone had had ninety cities, Homer reports. He also gives detailed descriptions of the capital of Sparta, where King Menelaus resided. And even in rural Ithaca, Odysseus's birthplace, his family lives in a several-storey mansion.

Most interesting, however, is the image of man depicted in the hero Odysseus, and how he deals with the oligarchical Olympian gods. Odysseus is clever, emotionally unblocked, and proud to be a human being. When he is offered immortality (i.e., the status of an Olympian demigod) if he marries the nymph Calypso, he turns the proposition down, demanding instead permission to go home to his human wife Penelope. And, although he is open to the well-meaning advice of Athena, the goddess of wisdom, he always expects to be hoodwinked by the rest of the lot. Homer's dealing with the Olympian gods is very ambiguous, poetical, psychological, and often very funny.

The third fundamental idea of the *Odyssey* is a call to action: Use ships to sail across the sea to other shores, explore foreign countries and cultures; if they are more highly developed, learn from them, and if they are poorly developed, teach them and build colonies. With a farreaching view both into the distant past and the future, the author of the *Odyssey* also expanded the horizon of the existing image of the world, which ended at the "Pillars of Hercules," that is, the Straits of Gibraltar, beyond that limit of the earth, outward into the Atlantic Ocean.²

† See "Homer, The Blind Seer," p. 32, this issue.

The entire epic clearly reflects an intention, a message to the listeners, especially in the Greece of Homer's life-



One fundamental idea of Homer's *Odyssey* was a call to action: Use ships to sail across the sea to other shores, explore foreign countries and cultures; if they are more highly developed, learn from them; and if they are poorly developed, teach them and build colonies. time. This is underlined by the fact that Homer's tale doesn't end with Odysseus's happy reunion with his faithful wife after an absence of twenty years. The hero, at this point being in his late forties, is rather to be sent on another mission—this time land-inward, to journey until he meets people who have never seen a ship, and mistake an oar for a shovel—imagine!—and to teach them the art of seafaring and travelling to other countries.

Whoever was behind this project besides Homer, it worked: The Greeks let themselves be inspired by Homer's seafaring vision. The historical process is called the Greek colonization of the Mediterranean (Eighth-Sixth centuries B.C.).

Solon

Let us make a time jump of roughly 150 years, to the lawgiver Solon of Athens and his great reform in 594 B.C. The story is recounted by Friedrich Schiller in his historical essay, "The Legislation of Lycurgus and Solon." The Athenian city-state was in a severe economic and political crisis. The gist of it was, that the oligarchs who ruled over the peasant population, more and more neglected the production of food and other goods, but discovered a way to enrich themselves by usury, which they practiced without restraint. They offered credit to the peasants, and if the unfortunate debtors couldn't pay, they took away, first, their land, and then, their children, and finally, they took possession of the debtors themselves, turning them into slaves. The result was an economic and political disaster. Many people were sold as slaves to other countries, many more debtors fled the country as fugitives. But, without peasants, there was no agriculture. The land lay idle, and the people were going hungry.

In this desperate situation, a certain constellation of elite forces was prudent enough to listen to Solon, who came from a prominent family and had received an excellent education, in part in Egypt. Solon proposed a just solution, if they would elect him Archon, or Chief Magistrate. He is elected, and rules for only one year. But, it is enough for a sweeping, revolutionary reform, which puts the society of Athens back on track. The most controversial (especially among monetarist historians) part of his reform, was the total cancellation of the whole mountain of unpayable debt. This is the so-called *"Seisachtheia,"* and all the debt-slaves become, in a single stroke, free citizens again, and can return home.

Shortly thereafter, enormous fights break out, but Solon's enemies did not succeed in undoing the longterm effect of his reform. In the course of these fights, Solon refused to become a tyrant, because that would have violated his own constitution and concept of natural law. On this concept of natural law and its connectedness to the Common Good of society he wrote a famous poem.³ Solon's reform marks the beginning of Athens' political rise as a regional power, and the ascent of what we still today admire as Greek culture and science.

Plato

Let us make another time jump of more than 200 years, because we want to briefly visit the philosopher Plato (427-347 B.C.). Athens is in crisis again. A symptom of this is the prosecution and judicial murder of Socrates in 399 B.C. But Plato did his job. From him, we have learned the concept of the *idea*, as something of a higher order of reality than the things perceived by the senses.

So, we meet him in his dialogue *The Republic*, when he is just telling his famous allegory of the cave. We hear him describe the difficulties involved in finding out what is really going on in the world, when you are sitting glued to your seat in front of a—television set. Of course, Plato's television set is the prison-wall in this cave, on which the prisoners see just the shadows of some puppets being moved behind their backs, which are illuminated by a fire still farther back in the cave. But, this doesn't mean that it would be completely impossible for man to find out, what was really going on. Once you keep in mind that the shadows are but shadows, you can make hypotheses concerning the real processes generating them.

As LaRouche has put it:

We progress by discovering that sense-perception's view of the universe is a false one. We correct for those errors of sense-perception, by generating experimentally validated notions of universal physical principles operating beyond the reach of our direct observation by sense-perception. Scientifically literate cultures therefore recognize, that the universe of sense-perception is not a true universe, but only a curiously distorted shadow which reality casts upon our sensorium.⁴

But, that is only part of the story. You don't need to remain glued to your seat. Outside the cave, the sun is shining, and there is freedom. But the process of crawling out of the cave is tiresome and painful, at first the light hurts your eyes. That's Plato's version of the principle of the sublime, as we know it from Friedrich Schiller.⁵ Human freedom is a process, in which you often have to decide against bodily demands of sensual wellness.

And there is still another message in Plato's allegory: Once you are out of the cave, walking in the light of knowledge, free and happy, you have a mission to go back in and teach the others to take the same upward road. It is dangerous, because people tend to love their chair in front of the TV set, or rather, there are other, powerful people who like the situation as it is, and violently oppose any change. The danger is, that you will get killed like Socrates; but, nonetheless, men and women who know more than others, are obliged to go down and teach. This is the destiny of man.

Christianity

We leave Plato, and, since we are only interested in the history of ideas, and a specific sort of ideas, let us just in passing take note of the rise of the Roman Empire in the later centuries B.C., and its collapse in the Fifth century A.D.

One date, however, sticks out: the year 0, when Jesus Christ was born. Owing to him and and others, notably St. Paul, a new culture developed in Palestine, blending Mosaic-Egyptian and Platonic-Greek thought. We know all about it from the New Testament, which reports not only the teachings of Christ, but also about St. Paul's ideas, and efforts to spread the new way of thinking and acting and relating to other people with *agapē* throughout the Roman Empire.

When the Emperor Constantine made Christianity the state religion of Rome, this damaged it significantly. But, at the same time, you had St. Augustine, coming from the area around Carthage in North Africa, who developed a coherent concept of Platonic Christianity in the footsteps of what St. Paul had meant, when he spoke in Athens about the "Unknown God."⁶

We should mention also an older contemporary of Jesus Christ, the Jewish philosopher Philo, who lived in Alexandria and introduced Platonic thought into Judaism. Unfortunately, we have no time to visit him, this time.

We have to move on, leaving behind the Dark Age covering the European continent for several centuries after the demise of the Roman Empire. We fly over the large forests. Here and there, a poor village. Some relics of Roman monuments and roads. People live in scattered tribes. Even the leaders are illiterate. There are no books, just some travelling teachers: Christian missionaries, like the English Boniface, who got a certain amount of support from King Pipin (the Short), the father of Charlemagne.

Charlemagne

We stop in the Eighth century A.D. Charlemagne is king over the area of what is today France and Germany. He has unified the many tribes though several wars, and he has an arrangement for mutual support with the Pope, with Charlemagne being the dominant partner. But all this is boring, compared to his Renaissance project. For Charlemagne, power was not an end in itself, but a means to uplift people to a higher way of life. His favorite book was St. Augustine's *City of God*, which he had someone read to him and his family during dinnertime.

Although Charlemagne never learned to read and write, he was quite educated nevertheless, fluent in Latin, and at least familiar with Greek. He started his grand education project by inviting the most learned men he could find to his court. The royal entourage processed around the country, staying for only a couple of months in any one place, where he held court before moving on.

The wisest of the learned men who collaborated with Charlemagne was Alcuin. He came from Northumberland in England, but Charlemagne met him in Italy. He came to the court in 781. As both men travelled a lot, there exists an extended exchange of letters between Charlemagne and Alcuin. In these letters, they discuss all kinds of themes, ranging from the movement of the stars, to matters of philology. And, of course, the Renaissance project. Alcuin writes to Charlemagne:

Were many to share your intentions, Franken would be the seat of a new Athens, indeed, a new Athens, finer than the old. For our own, elevated by Christ's teaching, would outstrip all the wisdom of the Academy.⁷

Charlemagne opens schools, first at the court itself, then around the country in every bishopric and cloister, elementary schools for children (boys, that is) to learn to read, write, sing, do arithmetic, and medicine. One of the famous schoolmasters at the time was Hrabanus Maurus. But, there are no books for the schools. Alcuin and others have to write textbooks, and they do this in the form of dialogues. Charlemagne himself himself works on a grammar book for his "mother tongue," because he understands very well, how important it is for building a nation to have an organically developed, literate language. Apparently, most of the Latin-speaking scholars around him resist this initiative.

There are no revolutionary changes in the economy under Charlemagne, but he tries to improve the existing methods. He has people set up state-run model farms, or rather model villages with farms and the whole spectrum of artisans, who are called *"fiscus,"* because they have to rigorously keep book on what they produce.

There are also public infrastructure projects, like wooden bridges over the Rhine, for example in Mainz, where the last Roman bridge had burned down many centuries earlier. Charlemagne personally supervises the attempt to build a canal connecting the German rivers Main and Danube, fully aware of the invigorating effect it would have on future trade. The project fails, because the required technology is simply unavailable. It would be 1,000 years, before the first, small-scale version of the Main-Danube canal was built in Bavaria.

In architecture, the idea is not simply to copy Roman buildings of the past, but to build churches and palaces that were similar to ancient Roman buildings, but also different and more beautiful. The palace of Charlemagne in Ingelheim, Germany, is not very big, but very lovely. And the palace in Aachen, where he spent most of the time in his later years, is yet quite different and absolutely beautiful. It clearly shows Islamic Moorish influences, not only in the similarities of the arches between the Chapel at Aachen and the Great Mosque in Córdoba, Andalusia.

Charlemagne did not have friendly relations with the Omayyad caliphate in Spain—it is a complicated and rather embarrassing story—but he did have friendly relations with the Abbasid ruler in Baghdad, the famous Harun al-Rashid. Diplomacy in those days was tedious, and it is difficult to imagine in our days of the internet, telephones, airplanes, or at least trains. At that time, horses were the quickest means of transport. This story about one of Charlemagne's diplomatic missions to Harun al-Rashid may illustrate the issue.

In 797, he sent a three-man delegation, two Franks, and as a translator, a Jew by the name of Isaac. (This is why this famous story is exhibited at the recently opened Jewish Museum in Berlin.) They left, and for four years Charlemagne didn't hear anything at all. In 801, when he was in Italy, two emissaries met him; one came from Harun al-Rashid, the other from an Islamic governor in Northern Africa (Tunis). They reported to Charlemagne that the two Franks had died during the long journey, but that Isaac had arrived in Baghdad, from whence he had left, loaded with presents for him, and that he waited with those presents in North Africa, to be picked up by ship. The most precious of those presents was a live elephant. Charlemagne sent a ship, they wintered in Italy, and in the spring of 802, Isaac and the others arrived with the elephant in Aachen. The elephant was named Abu Abbas, after the founder of Abbaside dynasty and lived until 810.8

Charlemagne's Empire fell apart territorially soon after his death, but the Renaissance effect remained, and was continued by many people during the following several centuries, including the Cathedral movement in

Under Charlemagne, the idea in architecture was not to simply copy Roman buildings of the past, but to build churches and palaces that were similar to ancient Roman buildings, but also different and more beautiful. The palace in Aachen is absolutely beautiful. It clearly shows Islamic Moorish influences,





beyond the similarities of the arches between the Chapel at Aachen and the Great Mosque in Córdoba.

Far left: Chapel Palantine, Aachen (Aixla-Chapelle). Designed by Odo of Metz, it was consecrated in A.D. 805.

Left: Great Mosque of Córdoba, double-tiered arches of the prayer hall. First constructed in A.D. 786-787 under 'Abd al-Rahman I. France,⁹ through Frederick II Hohenstaufen in the Thirteenth century.¹⁰

The Islamic Renaissance

Unfortunately, we have no time for a stop-over in Baghdad, where Harun al-Rashid ruled A.D. 786-809, because we want to move on to Persia. But, we remember that that famous king, like Charlemagne, drew the most learned men he could find to his court, and had them collect all the knowledge of the world. Later, his son Al Mamun put all these books in a newly built "House of Wisdom." It was a library-academy, on the model of the famous library of Alexandria, which had been burned down by Julius Caesar's troops in 48 B.C.

In an article on Andalusia, Muriel Mirak Weissbach has described the miracle of the Arabic language.¹¹ Owing to the work of many poets, who operated with conscious intent, a highly developed language was created. It was apparently so well-suited for expressing the most advanced ideas, that for, instance, Ibn Sina (Avicenna), who was a Persian, wrote his books in Arabic.

We were introduced to Ibn Sina in 1977 at a conference of the European Labor Party in Wiesbaden, Germany. A young woman in her twenties, Helga Zepp, not yet married to Lyndon LaRouche, spoke about this great Islamic thinker, Ibn Sina, who lived a thousand years ago (980-1037). We published this speech at the time, and I recently re-read it. She started with "declaring war against stupidity." If you never heard about Ibn Sina, this is due to the strange history books we had in school, she said. And then she told us, that Ibn Sina was a great physician, the authority in medical science not only in his time and country, but worldwide for the next seven centuries. A Latin translation of his *Canon of Medicine* was used in Europe until the Seventh century and beyond.

The actual subject of her presentation was, however, his major work on philosophy, his *Book on Healing*—the German title is more appropriate, *Book on Healing of the Soul*. She pinpointed three ideas in Ibn Sina's metaphysics, and these were: first, the notion of God as the "Necessary Being," the first cause of everything, which is not caused by anything else. Second, the fascinating idea that the "moving principle" of the universe, is also the moving principle of the creative human mind. And third, that it is not enough to know something—you have also to act accordingly, you have to apply that knowledge, in order to change the world.¹²

Indeed, Ibn Sina—his full name in Arabic is Abu Ali Al-Hussain Ibn Abdallah Ibn Sina, although he was known in the Latin West as Avicenna—is not an "ivorytower" type of person. He was born in Bukhara, one of the major centers of the old Silk Route. He got an excellent education in his father's house, including the *Qu'ran*, Greek philosophy, then medicine. At the age of 17, he is an accomplished physician and cures the King of Buchara, who allows him to use the Royal library.

He studies universal sciences, but continues to earn his living as a physician. His enormous *Canon of Medicine* includes not only the complete medical knowledge of his time, but also many original contributions by himself, for example on the contagious nature of diseases like tuberculosis, on gynecology, and anatomy. He was the first to describe the disease meningitis, he described in detail the anatomy of the human eye, and how the nerves move the muscles.

And, Ibn Sina was a politician as well, which brought him, not surprisingly, into great trouble. In the Persian city of Hamadan he works as personal physician and advisor to the king, who appoints him also Vizir. This causes counterreactions and intrigues and leads even to his imprisonment. But, as he is mentally and physically strong, he continues to write even in prison. Then he escapes to Isfahan, where he completes his works and dies in 1037.

His works were translated into Latin, and influenced Christian scholars like Albertus Magnus, Thomas Aquinas, Nicolaus of Cusa, of course, and the great Jewish thinker Moses ben Maimon (Maimonides), who was born 1135 in Córdoba (Muslim Spain) and later went to Egypt, where he was the leader of all Jewish congregations and personal physician of the son of the Sultan Saladin. This alone should open some eyes to the absurdity of the argument by Brzezinski, Huntington, and others about the intrinsic "clash of civilizations," and about allegedly unbridgeable gaps between Christianity, Judaism, and Islam in particular.

The Golden Renaissance

We come to the last leg of our journey: Renaissance Italy. Yes, the Renaissance starts with Dante, Petrarch, and the project to create an Italian literate language. What the Arabs can do, we can do as well, they must have said to themselves.

But, it is important to correct a wrong idea about the Fourteenth and Fifteenth century in Europe and in Italy. We tend to think: First there was the Dark Age, with the plague that killed off half the population, and *then* came the Renaissance—Dante's project of an Italian literate language, the poets Petrarch and Boccaccio, then, in the Fifteenth century Nicolaus of Cusa and his friend Eneas Silvius Piccolomini, who became Pope in 1458, and Leonardo da Vinci, Raphael, and so forth. The fact is, the great plague and the renaissance happened largely during *the same time*. Nicolaus of Cusa himself succeeded in avoiding the plague, but his friend Eneas got it, and only narrowly survived.

Not only does every renaissance start in a dark age, it also takes place for some period of time in circumstances that would be described, under different criteria, as a "pretty-dark age." In the introduction to his book of tales, The Decameron, Boccaccio tells us, how the plague not only killed people in every family, but it also destroyed all human relations, perverted morality, and led to a mental and emotional barbarism. The intention to counteract this was the agapic motivation behind his book. Mindless existentialists, who like the Decameron, because it includes stories about monks having sex with young girls, etc., will never understand that. It would certainly be a worthwhile research project, to see how many of Shakespeare's plays come from stories in the Decameron. Also, the original of the famous "Parable of the Rings" of the German poet Gotthold Lessing, in his drama Nathan, the Wise, comes from the Decameron (Day 1, No. 3), although the wise Jew is not called Nathan, but Melchisedech.

The Renaissance is a huge project, with a goal of rebuilding a run-down culture and society. The humanists took delight in discovering an increasing number of ancient Greek and Roman writings, in translating and publishing them. But the idea of the best humanists never was to simply copy the old ideas; rather, it was to seek out the best of those ideas of Plato and others, and to create with such ingredients a new and better culture.

The Golden Renaissance was actually a movement. It was the long-term, successful result of the activities of a number of enthusiastic individuals and their friends, who at first were organized in small informal circles, like the "Paradiso of Alberti" or Marsigli's group "Santo Spiritu" in Florence. Into these circles they recruited intelligent and open-minded people, some of whom-like Coluccio de' Salutati (1330-1406), who was Secretary of the Republic of Florence for thirty years-gained considerable political influence.¹³ The activities of those Renaissance humanists were manifold: Some organized large networks of people all over Europe, to whom they wrote letters regularly, or they translated ancient works, and took care to spread them around; others performed scientific experiments, developed painting into a science, or took care of the education of the younger generation and wrote, for this purpose, new textbooks. All of these activities taken together, form the breeding ground, on which future geniuses can grow.

One such genius is Nicolaus of Cusa, the towering intellectual giant of the Golden Renaissance. He was born in Kues on the Mosel River, but he didn't like it at the scholastic university of Heidelberg, and went instead to Padua in Italy. He lived in Italy in his later years also, as a cardinal, especially after his friend Eneas became Pope Pius II. Nicolaus of Cusa is a pioneer in the dialogue of cultures, which is why Helga Zepp LaRouche refers to him so prominently in her call for an international correspondence about that subject.¹⁴ In 1437, he is sent to Constantinople for ecumenical talks with the Eastern Church. He returns by ship with a huge delegation from Constantinople, including the Eastern Emperor and the Patriarch, in time for the Council of Florence (Ferrara), which leads to the reunification of the Eastern and Western Churches in 1439.

After Constantinople has fallen in 1453 to the Islamic Turks, Cusa writes *De pace fidei* ("On the Peace of Faith") about peace among the religions. In this dialogue, which is set in heaven, representatives of 17 religions discuss, along with the Apostles Peter and Paul, and the Word of God, how there is "only one religion in a variety of rites." It is not only a very important philosophical writing, it is also an absolutely artful piece of prose. Well-translated excerpts may be performed like a dramatic dialogue.¹⁵

It includes many wonderful passages, which I could quote here. However, I will focus on two passages expressing Cusa's humanist image of man very beautifully. In the discussion about peace among the religions, the first to speak is a Greek. He agrees with the Word of God (*logos*) that all philosophers are striving for only "one wisdom," and then talks about his image of man:

How great is the power of Wisdom that shines forth in the creation of man!—in his members, in the ordering of the members, in the infused life, the harmony of the organs, the movement, and, finally, in the rational spirit. This spirit is capable of marvelous arts and is, as it were, Wisdom's imprint; in this spirit, more than in anything else, eternal Wisdom shines forth as in a close image [of itself] . . .¹⁶

The second thought is expressed by St. Peter in a discussion with the Syrian about eternal life and the unity of human nature with God's nature. St. Peter says that a common idea to all religions is, that

all men have the desire and hope for eternal life. . . . Men seek after happiness (which is eternal life) in no other nature than their own. Man wishes to be only a man—no angel or any other nature. But he wishes to be a happy man who attains ultimate happiness. This happiness is only human life's enjoyment of—i.e., union with—its own Fount, from which flows life itself and [which] *is* immortal divine life.¹⁷

In *De pace fidei*, Cusa mentions only one philosopher of a foreign culture by name: Avicenna, whom he praises as one of "those among the Arabs [sic], who are discerning and wise." He states that, in harmonious accordance with the Christian view, the intellectual happiness that results from the vision, or enjoyment, of God and of truth is preferred by Avicenna incomparably more than the happiness described in the law of the Arabs—even though Avicenna was [an adherent] of that law. . . . Therefore, with regard to that the present [issue] there will be no difficulty in rendering harmonious all the sects.¹⁸

The discovery of this direct reference to Avicenna (Ibn Sina) in *De pace fidei* led me to another idea: Why not imagine another conversation taking place in the simultaneity of eternity, more informal perhaps than Cusa's heavenly synod, just a discussion about some crucial ideas, which we want to discuss anyway as necessary ingredients of a new renaissance?

For this discussion, we have invited Nicolaus, Ibn Sina, and the philosopher G.W. Leibniz from the past, and from the present, we have a man, well-known to all of us, joining them: Lyndon LaRouche. This is, of course, my metaphorical LaRouche, and has to be distinguished from the real, living LaRouche, who will hopefully forgive me for this. The conversation is fictitious, of course, but every single idea in it is authentic, and all passages in quotation marks are literal quotes.

The Debate

IBN SINA said, already entering the door: My compliments to you, Nicolaus, for your piece on the "one religion," and especially for those words you have put in the Greek's mouth on the image of man. As a doctor and philosopher, I couldn't agree more. And I don't say this, because you had such kind words for me ...

CUSA: Well, I studied your *Book on Healing* with great interest. I really like your metaphorical description of God as "pure reason," and that man feels in his soul a kind of longing for real knowledge and wisdom. Similarly, as I wrote in "The Layman about Wisdom": "Nothing is more delightful to the intellect than is Wisdom. . . . Because eternal and infinite Wisdom shines forth in all things, it attracts us by means of a certain foretasting of its effects, so that we are brought onto it with wondrous desire."¹⁹

LEIBNIZ was also full of praise for the Persian colleague and said that he had taken up his notion of God as "Necessary Being" explicitly in the centerpiece of his own metaphysical works, the *Monadology* (Para. 45).²⁰

IBN SINA modestly said, that there was no doubt, that both Cusa and Leibniz had formulated the idea of the human mind as the image of God, in a much clearer and more poetical way than he had done earlier. **LEIBNIZ** wanted to know, whether Ibn Sina was perhaps referring to the passage in the *Monadology* about the difference between the souls of animals and the human mind, which some also call "spirit": "Among the differences that there are between ordinary souls and spirits ... there is also this, that, while souls in general are living mirrors or images of the universe of created things, minds are also images of the Deity himself or of the author of nature. They are capable of knowing the system of the universe, and to imitate it somewhat by means of architectonic patterns, each mind being like a small divinity in its sphere." (Para. 83)²¹

At this point, my metaphorical LAROUCHE suggested, that in order to explain to people in our time, in what respect they are a "living image of God," you ought to explain to them what is specifically "human" in their thinking, in contrast to the empirical thinking of animals, or the logical operations of a computer.

LEIBNIZ nodded, and quoted from the *Monadology:* "We see that animals when they have the perception of something which they notice and of which they have had a similar previous perception, are led by the representation of their memory to expect that which was associated in the preceding perception, and they come to have feelings like those which they had before. For instance, if a stick be shown to a dog, he remembers the pain which it has caused him and he whines or runs away.

"Men act in like manner as animals, in so far as the sequence of their perceptions is determined only by the law of memory, resembling the *empirical physicians* who practice simply, without any theory, and we are empiricists in three-fourths of our actions. For instance, when we expect that there will be daylight tomorrow, we do so empirically, because it has always happened so up to the present time. It is only the astronomer who uses his reason in making such an affirmation." (Paras. 26 and 28)²² Which is both an argument against empiricism, as nonhuman thinking, and against the notion of Descartes and other mechanists, that animals are machines and don't think at all.

CUSA, for his part, contributed a good explanation of the difference between two levels of reason, a lower more mechanical one, and a higher one involving insight and judgement: "[The situation is] as if a layman who did not know the meaning of the words were to read aloud from some book. The reading aloud would proceed by the power of reason. For he would read aloud by making inferences regarding the differences of the letters, which he would combine and separate; and this would be the work of reason. Yet, he would remain ignorant of [the content of] what he was reading aloud. But suppose there were also another man, who were to read aloud and both know and understand that which he read. Here is a certain illustration of confused reason and reason formed by mind. For mind exercises discriminative judgment regarding instances of reasoning, [thereby discerning] which reasoning is good and which is sophistical."²³

IBN SINA brought up another issue, namely, how ideas come into being: You should know, that at times the conceivable idea is abstracted from the existing thing, as, for example, when we abstract the conceivable idea-form of the celestial sphere by way of observation and sense-perception. At times, the truly-existing idea-form is not taken from existing things. It is rather vice versa, as, for example, when we are thinking the idea of a building, which we are freely inventing. In this case, the conceived form of idea becomes the moving principle for our hands and limbs, so that we cause the building to take shape in reality. The relationship is not, that first the conceptional content exists, so that we could then recognize it; but, we recognize it first, and then it really exists. The relationship between the universe and the first intelligence, the necessary existent, is that one.²⁴

CUSA turned to Ibn Sina, smiling: You see, here you are yourself quite clearly drawing the analogy between creative man and the Creator, God. I merely elaborated this concept a bit further, and explained the difference between a fixed image and a *living* image of God. My layman explains it thus: "You know that our mind is a certain power that bears an image of the Divine Art.... Therefore, mind is created by the Creative Art—as if that Art willed to create itself, and because the Infinite Art is unreplicable, there arose its image. [The situation is] as if a painter wished to reproduce himself by painting, and because he himself is not replicable, there would arise—as he was reproducing himself—his image.

"And because no matter how nearly perfect an image is, if it cannot become more perfect and more conformed to its exemplar, it is never as perfect as any imperfect image whatsoever that has the power to conform itself ever more and more, without limit, to its inaccessible exemplar. For in this respect the image, as best it can, imitates infinity. It is as if the painter were to make two images [of himself], one of which was dead but seemed actually more like him, and the other of which was less like him but was alive-it could make itself ever more conformed. No one doubts that the second image is the more perfect qua imitating, to a greater degree, the art of the painter. In a similar way, every mind ... has from God the fact that, as best it can be, it is a perfect and living image of the Infinite Art ... in such a way that it can conform itself, when stimulated, ever more and more to its exemplar."25

IBN SINA interjected, that this requires, however, that man must want and work for this kind of perfection. And that the same is true for any effect of human ideas on reality. The difference between God and man being, that any thought of God means immediately that the thoughtobject really exists; but human ideas become realized only, if there is the will to do it. "The cognitive idea becomes real in us and then it becomes the cause for substances of artificial creations existing in the outside world. If the mental existence of these ideas within us were sufficient for bringing the artificial forms into existence ..., then cognitive comprehension were at the same time our power over the things we want to produce. But it is not so; the existence of cognitive notions within us does not suffice to achieve an outside effect. They need, in addition, a constantly renewed resolution of will, which is set into motion by the power of want, which at the same time sets into motion the power to move. This power moves the nerves and limbs like instruments, then the outer organs, and finally matter."26

LAROUCHE whole-heartedly agreed, especially to the notion of human will, or conscious intention, which is necessary to change the world, for better or worse. And often, a "sensuous act" is necessary to actualize a decision taken in the mind. Then, he moved on from philosophy to economy, elaborating briefly on the deep interconnection between epistemology and scientific progress, and how the culture of a society affects the productivity of its economy, which is measured in the relative potential population density of the society: "Human beings have the unique ability of their species, to rise above that prison-house of delusions called sense-certainty, to discover experimentally demonstrable universal physical principles.... Where lower forms of life are unable to rise, by their own minds, above the ecological and related potentialities bestowed upon their biological heritage, mankind is able to transmit variously false or true discoveries of universal physical principle, from generation to generation.

"This transmission of such distinctly human qualities of ideas, constitutes that to which we rightly award the name of 'culture.' Thus, the history and nature of mankind, is expressed as either evolutionary development, or decadence, of variously failed and relatively successful cultures, and of the individual persons within those cultures.

"My own most fundamental, and eminently successful contribution to the study of cultures, lies in my introduction of the conception of *potential relative population-density*, as the uniquely competent basis for defining *a physical science of economics*."²⁷

And he defined physical-economic development as the discovery, transmission, and application for practice of

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of the best humanists never was to simply copy the old ideas. Rather, it was to seek out the best of those ideas of Plato and others, and to create with such ingredients a new and better culture.

Benozzo Gozzoli, "Journey of the Magi," 1459 (detail). The mural subject celebrates the 1437 Council of Florence, which brought together the poets, philosophers, and statesmen of the Latin West and the Greek East.



new physical principles.

All three wise men, IBN SINA, CUSA, and LEIBNIZ, fully agreed to this.

IBN SINA said, that his metaphysics actually included a principle of perfection as a kind of germ-notion for "antientropy," but that his economic policy was limited to some simple advice. He listed three such suggestions: Every government must guarantee that (1) everyone has the opportunity to earn his living in a way that is also useful to the rest of society, (2) this is not undercut by people who enrich themselves by various forms of cheating, such as gambling or usury, and (3) there must be a public sector that serves the common good, taking care of the poor and sick, and other public affairs.²⁸

CUSA at this point referred briefly to his plans for a general reform of Church and state, which he had outlined in his book *Concordantia catholica*, and

LEIBNIZ gave a very interesting report on his plan for a "German Society for the Arts and Sciences," which was to bring together "*theoria cum praxi*," theoretical science with practical research, testing and applying newly dis-

covered principles.²⁹ Therefore, the Society should not be a traditional university, but something more like a science city, with a large library featuring the most interesting books from around the world, a museum of discoveries, laboratories, workshops, schools, an orphanage, and an institution where poor people could find employment, etc. This Society was supposed to be a radiating point of physical-economic change. He expressed a certain frustration, because the Germans didn't realize the plan. The closest approximation of Leibniz's plan actually was put in place by Czar Peter I in St. Petersburg.

He referred to the very last page of his book, *New Essays on Human Understanding,* where he developed this principle of an alliance among theory and practice, and proposed to add to the traditional scholarly faculties of Theology, Law, Medicine, and Philosophy, a new faculty of Economics: "Some people have believed, not without reason, that along with the others there should be an *Economic* faculty: this would include the mathematical and mechanical arts, and everythimg having to do with the fine points of human survival and the conveniences of life; and it would include agriculture and architecture And then there are the professions whose members serve

society [work for the common good-GL] other than by what they say, and who ought to be guided by those who are truly learned-if only learning were valued as it ought to be. Even in the higher manual arts there has been an alliance of practice with learning, and it could go further. As indeed they are allied in medicine This alliance between theory and practice can also be seen in war ..., among painters, sculptors, and musicians, and among certain other kinds of *virtuosi*. If the principles of all these professions, arts and even trades were taught in a practical way by the philosophers-or it might be in some other faculty of learned men-the latter would truly be the teachers of mankind. But this would require many changes in the present state of things in literature, in the education of the young, and thus in public policies [administration of the state-GL]."30

LAROUCHE responded enthusiastically: Here you have already the idea of the Ecole Polytechique, which was later founded in France! This is why I always referred to Leibniz's notion of "technology" as the key idea for my concept of physical economy. Now, however, for a last time, LEIBNIZ took the speech, and in a somewhat grim mood, he said about his philosophical and political adversaries, who don't believe in natural law: "... they give their brutish passions free rein and apply their thoughts to seducing and corrupting others. If they are ambitious and by nature rather callous, they are capable of setting fire to the four corners of the earth, for their pleasure or advancement But these people may come to experience for themselves the evils that they believe will only befall others. If they cure themselves of this spiritual epidemic whose bad effects are starting to show, those evils will perhaps be prevented; but if the disease continues to spread, it will produce a revolution, and providence will cure men by means of that³¹

The revolution Leibniz was talking about, came; its most positive aspect was the American Revolution of 1776. Something similar is obviously and desperately needed today. The humanists of the world should support the better America in this noble undertaking.

NOTES

- Lyndon H. LaRouche, Jr., "Can We Change the Universe?," Executive Intelligence Review, March 2, 2001 (Vol. 28, No. 9).
- Gabriele Liebig, "Homer's Odyssey, Long-Distance Seafaring and the Principle of Colonization," 21st Century Science & Technology, Spring 1999 (Vol. 12, No. 1).
- 3. Solon of Athens, "The Constitutional Order," trans. by David Shavin, *Fidelio*, Summer 1993, Vol. II, No. 2.
- Lyndon H. LaRouche, Jr. "Zbigniew Brzezinski and September 11th," *Executive Intelligence Review*, Jan. 11, 2002 (Vol. 29, No. 1).
- See Friedrich Schiller, "On the Sublime," in *Friedrich Schiller, Poet* of *Freedom*, Vol. III, ed. and trans. by William F. Wertz, Jr. (Washington, D.C.: Schiller Institute, 1990).
- 6. Acts of the Apostles 17:16-29.
- Phillipe Messer, "The Scientific Renaissance of the Medieval Cathedrals," 21st Century Science & Technology, Fall 2001 (Vol. 14, No. 3).
- 8. See Engelbert Muehlbacher, *Deutsche Geschichte unter den Karolingern* (Essen: Phaidon Verlag), Vol. I.
- 9. See footnote 7.
- Christa Kaiser, "Kaiser Friedrich II. und der moderne Nationalstaat," *Neue Solidarität*, Dec. 6, 2000 (Nr. 49).
- 11. Muriel Mirak Weissbach, "Andalusia, Gateway to the Golden Renaissance," *Fidelio*, Fall 2001 (Vol. X, No. 3).
- 12. Helga Zepp, "Euro-Arabische Renaissance," both quotes from *Neue Solidarität*, Jan. 20, 1977.
- 13. See S. Harrison Thomson, *Das Zeitalter der Renaissance. Von Petrarch bis Erasmus* (Munich: Kindler Verlag, 1977), p. 38ff. English edition: *Europe in Renaissance and Reformation*.
- Helga Zepp LaRouche, "Invitation To Participate in an International Correspondence for a 'Dialogue of Cultures,' "*Fidelio*, Fall 2001 (Vol. X, No. 3)
- See "Nicolaus of Cusa: A Great Man of Ecumenicism," *Fidelio*, Summer 2001 (Vol. X, No. 2), for a report on a performance of selections from *De pace fidei* by members of the Schiller Institute's

"Tell Group" in Hanover, Germany.

- 16. Nicolaus of Cusa, "De pace fidei," in *Complete Philosophical and Theological Treatises of Nicholas of Cusa*, trans. by Jasper Hopkins (Minneapolis, Minn.: The Arthur J. Banning Press, 2001), Vol. I. See also *Toward a New Council of Florence: "On the Peace of Faith" and Other Works by Nicolaus of Cusa*, translated with an introduction by William F. Wertz, Jr. (Washington, D.C.: Schiller Institute, 1993).
- 17. *Ibid*.
- 18. *Ibid*.
- 19. Nicolaus of Cusa, "Idiota de sapienta" ("The Layman About Wisdom)," in *Complete Philosophical and Theological Treatises, op. cit.*
- See Gottfried Wilhelm Leibniz, *The Monadology*, in *Discourse on Method and The Monadology*, trans. by George R. Montgomery (Buffalo, N.Y.: Prometheus Press, 1992), Paras. 45 and 38.
- 21. Ibid., Para. 83.
- 22. Ibid., Paras. 26 and 28.
- 23. Nicolaus of Cusa, "Idiota de mente" ("The Layman About Mind"), in Complete Philosophical and Theological Treatises, op. cit.
- 24. Ibn Sina (Avicenna), *Book on Healing of the Soul*, Series II: Philosophy, Dissertation 8: Natural Theology, Ch. 7. Translated from the German by the author.
- 25. Nicolaus of Cusa, "Idiota, de mente," op. cit.
- 26. Ibn Sina, op. cit.
- 27. LaRouche, "Brzezinski," op. cit.
- Ibn Sina, op. cit., Dissertation 10: Practical Philosophy, Ch. 4, "The Life of Cities."
- 29. G.W. Leibniz, "Outline of a Memorandum: On the Establishment of a Society in Germany for the Promotion of the Arts and Sciences (1671)," *Fidelio*, Spring 1992 (Vol. I, No. 2).
- G.W. Leibniz, *New Essays on Human Understanding*, trans. and ed. by Peter Remnant and Jonathan Bennett (Cambridge: Cambridge University Press, 1996), p. 527.
- 31. Ibid, p. 462.

The Fundamental Theorem of Algebra Bringing the Invisible To the Surface

A Pedagogical Exercise in Two Parts, with an Afterword by Lyndon H. LaRouche, Jr.

No.

by Bruce Director

I. Gauss's Declaration of Independence

In September 1798, after three years of self-directed study, Carl Friedrich Gauss, then 21 years old, left Göttingen University without a diploma, and returned to his native city of Brunswick to begin the composition of his *Disquisitiones Arithmeticae*. Lacking any prospect of employment, Gauss hoped to continue receiving his student stipend, without any assurance that his patron, Carl Wilhelm Ferdinand, Duke of Brunswick, would oblige. After several months of living on credit, word came from the Duke that the stipend would continue, provided Gauss obtained his doctor of philosophy degree, a task Gauss thought a distraction, and wished to postpone.

Nevertheless, Gauss took the opportunity to produce a virtual declaration of independence from the stifling world of deductive mathematics, in the form of a written thesis submitted to the faculty of the University of Helmstedt, on a new proof of the fundamental theorem of algebra. Within months, he was granted his doctorate without even having to appear for oral examination.

Describing his intention to his former classmate, Wolfgang Bolyai, Gauss wrote, "The title [fundamental theorem] indicates quite definitely the purpose of the essay; only about a third of the whole, nevertheless, is used for this purpose; the remainder contains chiefly the history

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and a critique of works on the same subject by other mathematicians (viz. d'Alembert, Bougainville, Euler, de Foncenex, Lagrange, and the encyclopedists . . . which latter, however, will probably not be much pleased), besides many and varied comments on the shallowness which is so dominant in our present-day mathematics."

In essence, Gauss was defending, and extending, a principle that goes back to Plato, in which only physical action, not arbitrary assumptions, defines our notion of magnitude. Like Plato, Gauss recognized that it would be insufficient to simply state his discovery, unless it were combined with a polemical attack on the Aristotelean falsehoods that had become so popular among his contemporaries.

Looking back on his dissertation fifty years later, Gauss said, "The demonstration is presented using expressions borrowed from the geometry of position; for in this way, the greatest acuity and simplicity is obtained. Fundamentally, the essential content of the entire argument belongs to a higher domain, independent from space [i.e., anti-Euclidean–BD], in which abstract general concepts of magnitudes, are investigated as combinations of magnitudes connected by continuity: a domain, which, at present, is poorly developed, and in which one cannot move without the use of language borrowed from spatial images."

It is my intention to provide a summary sketch of the history of this idea, and Gauss's development of it. It can not be exhaustive. Rather, it seeks to outline the steps which should form the basis for oral pedagogical dialogues, already underway in various locations.*

Multiply-Extended Magnitude

A physical concept of magnitude was already fully developed by circles associated with Plato, and expressed most explicitly in the *Meno, Theatetus,* and *Timaeus* dialogues. Plato and his circle demonstrated this concept, pedagogically, through the paradoxes that arise when considering the uniqueness of the five regular solids, and the related problems of doubling a line, square, and cube. As Plato emphasized, each species of action generated a different species of magnitude. He denoted such species by the Greek word *dunamis,* the root of the English "dynamo," usually translated into English as "power." The meaning of the term *dunamis* is akin to Leibniz's use of the German word *Kraft.*

That is, a linear magnitude has the "power" to double

^{*} This set of pedagogical exercises is part of an ongoing series on "Riemann for Anti-Dummies," produced for study by members and friends of the International Caucus of Labor Committees. Some have been published in *New Federalist* newspaper. See also Bruce Director, "The Division of the Circle and Gauss's Concept of the Complex Domain," *21st Century Science & Technology*, Winter 2001-2002 (Vol. 14, No. 14).



FIGURE 1. Doubling and "powers." (a) The magnitude which has the "power" to double the length of a line is produced by simple extension. (b) The magnitude which has the power to produce a square of double area, is the diagonal of the smaller square, and is called "the geometric mean" between the two squares. The magnitude of diagonal BC is incommensurable with, and cannot be produced by, the magnitude of side AB of the smaller square. (c) The magnitude which has the power to produce a cube of double volume, is different from the magnitudes which have the power to double a square, or a line. It is the smaller of two geometric means between the two cubes. This magnitude is incommensurable with both lower magnitudes, the square and the line.



a line, whereas only a magnitude of a different species has the "power" to double a square, and a still different species has the "power" to double a cube [SEE Figure 1(a)-(c)]. In Bernhard Riemann's terminology, these magnitudes are called, respectively: simply-extended, doublyextended, and triply-extended. Plato's circle emphasized that magnitudes of lesser extension lacked the potential to generate magnitudes of higher extension, creating, conceptually, a succession of "higher powers."

Do not think here of the deductive use of the term "dimension." While a perfectly good word, "dimension" in modern usage too often is associated with the Kantian idea of formal Euclidean space, in which space is considered as a combination of three, independent, simplyextended dimensions.

Think, instead, of "physical extension." A line is produced by a physical action of simple extension. A surface may be bounded by lines, but it is not made from lines; rather, a surface is irreducibly doubly-extended. Similarly, a volume may be bounded by surfaces, which in turn are bounded by lines, but it is irreducibly triply-extended.

Thus, a unit line, square, or cube, may all be characterized by the number One, but each One is a species of a different power.

Plato's circle also emphasized, that this succession of magnitudes of higher powers, was generated by a succession of differing types of action. Specifically, a simply-extended magnitude was produced from *linear action*, doubly-extended magnitudes from *circular action*, and triply-extended magnitudes from *extended circular action*, such as the rotational actions which produce a cone, cylinder, or torus. This is presented, pedagogically, by Plato in the *Meno* dialogue, with respect to doubly-extended magnitudes, and in the *Timaeus*, with respect to the uniqueness of the five regular solids, and the problem of doubling the cube. Plato's collaborator, Archytas, demonstrated that the magnitude with which a cube is doubled, is not generated by circular action, but from extended circular action, i.e., conic sections [SEE Figure 2, and inside front cover, this issue].

It fell to Apollonius of Perga (262-200 B.C.) to present a full exposition of the generation of magnitudes of higher powers, in his work on *Conics*. His approach was to exhaustively investigate the generation of doublyand triply-extended magnitudes, which he distinguished into plane (circle/line) and solid (ellipse, parabola, hyperbola) loci.

As Abraham Gotthelf Kästner indicates in his *History* of *Mathematics* (1797), the investigation of the relationships among higher powers, gave rise to what became known by the Arabic root word *algebra*; and, from Gottfried Wilhelm Leibniz (1644-1716) on, as *analysis*. Here, the relationship of magnitudes of the second power (squares) and the third power (cubes) were investigated in the form of, respectively, quadratic and cubic algebraic equations. Meanwhile, equations of higher than third degree took on a formal significance, but lacked the physical referent visible in quadratics and cubics.

Girolamo Cardan (1501-1576), and later, Leibniz, showed that there was a "hole" in the totality of forms of algebraic equations, as indicated by the appearance of the square roots of negative numbers as solutions to certain

FIGURE 2. Archytas's construction for doubling of the cube. Archytas developed a construction to find two geometric means between two magnitudes, AC and AB. Magnitude AC is drawn as the diameter of circle ABC; AB is a chord of the circle. Using this circle as the base, generate a cylinder. The circle is then rotated 90° about AC, so it is perpendicular to the plane of circle ABC; it is then rotated about point A, to form a torus with nil diameter. (The intersection of the torus and the cylinder produces a curve of

double curvature.) Chord AB is extended until it intersects the perpendicular to AC at point D; this forms triangle ACD, which lies in plane of circle ABC, AB, and AC. Triangle ACD is then rotated around AC, producing a cone. The cone, torus, and cylinder, all intersect at point P. Perpendicular PM is then dropped from P along the surface of the cylinder, until it intersects circle ABC at point M; this forms right triangle AMP.

Through this construction, a series of similar right triangles (only partially





FIGURE 3. The principle of "squaring" involves doubling the angle of rotation and squaring the length. Angle β is double angle α , and angle γ is double angle β . Also, the length of B is the square of A, and the length of C is the square of B.

equations. Peering into this "hole," Leibniz recognized that algebra could teach nothing about physics; but, instead, that a general physical principle underlay all algebraic equations, of whatever power.

Writing in about 1675 to Christiaan Huyghens (1629-1695) on the square roots of negative numbers, Leibniz added that he had invented a machine which produced exactly the required action of this general physical principle:

It seems that after this instrument, there is almost nothing more to be desired for the use which algebra can or will be able to have in mechanics and in practice. It is believable that this was the aim of the geometry of the ancients (at least that of Apollonius) and the purpose of *loci* that he had introduced, because he had recognized that a few lines determine instantly, what long calculations in numbers could achieve only after long work capable of discouraging the most firm.

Although he determined the physical action that generated a succession of higher powers, Leibniz left open the question of what the physical action was, which produced the square roots of negative numbers.

Gauss's Proof of the Fundamental Theorem

By the time Gauss left Göttingen, he had already developed a concept of the physical reality of the square roots of negative numbers, which he called *complex numbers*. Adopting the method of the metaphor of the cave from Plato's *Republic*, Gauss understood his complex numbers to be shadows reflecting a complex of physical actions (action acting on action). This complex action reflected a power greater than the triply-extended action which characterizes the manifold of visible space.

It was Gauss's unique contribution, to devise a metaphor by which to represent these higher forms of physical action, so that they could be represented, by their reflections, in the visible domain.

In his 1799 dissertation, Gauss brilliantly chose to develop his metaphor polemically, on the most vulnerable flank of his opponents' algebraic equations. Like Leibniz, Gauss rejected the deductive approach of investigating algebraic equations on their own terms, insisting that it was physical action which determined the characteristics of the equations.

A simple example will help illustrate the point. Think of the physical meaning of the equation $x^2=4$. We all know that x refers to the side of a square whose area is 4. Thus, 2 is a solution to this equation. Now, think of the physical meaning of the equation $x^2=-4$. From a formal deductive standpoint, this equation refers to the side of a square whose area is -4. But, how can a square have a (negative) area of -4? Formally, the second equation can be solved by introducing the number $2\sqrt{-1}$, or 2i (where i denotes $\sqrt{-1}$), which, when squared, equals -4. But the question remains, what is the physical meaning of $\sqrt{-1}$?

One answer is to say that $\sqrt{-1}$ has no physical meaning, and thus the equation $x^2 = -4$ has no solution. To this, Euler and Lagrange added the sophistry, richly ridiculed by Gauss in his dissertation, that the equation $x^2 = -4$ has a solution, but the solution is impossible!

Gauss demonstrated the physical meaning of the $\sqrt{-1}$, not in the visible domain of squares, but in the *cognitive* domain of the *principle* of squaring.

This can be illustrated pedagogically, by drawing a square, whose area we will call 1. Then, draw diagonal A of that square, and draw a new square, using that diagonal as a side. The area of the new square will be 2. Now, repeat this action, to generate a square, whose area is 4 [SEE Figure 3].

What is the principle of squaring illustrated here? The action that generated the magnitude which produced the square whose area is 2, was a rotation of 45° and an extension of length from 1, the side of the first square, to $\sqrt{2}$, its diagonal, which becomes the side of the next square. To produce the square whose area is 4, the 45° rotation was doubled to 90°, and the extension was squared to become 2. Repeat this process several times, to illustrate that the principle of squaring can be thought of



FIGURE 4. Squaring a complex number. The general principle of "squaring" can be carried out on a circle. z^2 is produced from z by doubling the angle α and squaring the distance from the center of the circle to z.

as the combined physical action of doubling a rotation, and squaring a length. The square root is simply the reverse action, that is, halving the angle of rotation, and decreasing the length by the square root.

Now, draw circle N and a diameter, and apply this physical action of squaring to every point on the circle. That is, take any point on the circumference of the circle (point z in the figure). Draw the radius connecting that point to the center of the circle. That radius makes an angle with the diameter you drew. To "square" that point, double angle α between the radius and the diameter to form angle β , and square the length. Repeat this action with several points. Soon you will be able to see that all the points on the first circle map to points on a larger, concentric circle, whose radius is the square of the radius of the original circle. But, it gets curiouser and curiouser. Since you double the angle each time you square a point, the original circle will map onto the "squared" circle twice [SEE Figure 4].

There is a physical example that illustrates this process. Take a bar magnet and rotate a compass around the magnet. As the compass moves from the North to the South pole of the magnet (180°), the compass needle will make one complete revolution (360°). As it moves from the South pole back to the North, the needle will make another complete revolution. In effect, the bar magnet "squares" the compass!

Gauss associated his complex numbers with this type of compound physical action (rotation combined with extension). He made them visible, metaphorically, as spi-



FIGURE 5. The unit of action in Gauss's complex domain.

ral action projected onto a surface. Every point on that surface represents a complex number. Each number denotes a unique combination of rotation and extension. The point of origin of the action ultimately refers to a physical singularity, such as the lowest point of the catenary, or the poles of the rotating Earth, or the center of the bar magnet.

Using the above example, consider the original circle to be a unit circle in the complex domain. The center of the circle is the origin, denoted by O, the ends of the diameter are denoted by 1 and -1. The square root of -1 is found by halving the rotation between 1 and -1, and reducing the radius by the square root. Think carefully, and you will see that $\sqrt{-1}$ and $-\sqrt{-1}$ are represented by the points on the circumference which are half-way between 1 and -1 [SEE Figure 5].

Gauss demonstrated that all algebraic powers, of any degree, when projected onto his complex domain, could be represented by an action similar to that just demonstrated for squaring. For example, the action of cubing a complex number is accomplished by tripling the angle of rotation and cubing the length. This maps the original circle three times onto a circle whose radius is the cube of the original circle. The action associated with the biquadratic power (fourth degree), involves quadrupling the angle of rotation and squaring the square of the length. This will map the original circle four times onto a circle whose radius is increased by the square of the square, and so forth for the all higher powers.

Thus, even though the manifolds of action associated with these higher powers exist outside the triply-extended manifold of visible space, the characteristic of action which produces them was brought into view by Gauss in his complex domain.

II. Bringing the Invisible to the Surface

When Carl Friedrich Gauss, writing to Wolfgang Bolyai in 1798, criticized the state of contemporary mathematics for its "shallowness," he was speaking literally; and not only about his time, but also ours. Then, as now, it had become popular for the academics to ignore, and even ridicule, any effort to search for universal physical principles, restricting instead the province of scientific inquiry to the seemingly more practical task, of describing only what is visible on the surface. Ironically, as Gauss demonstrated in his 1799 doctoral dissertation on the fundamental theorem of algebra, what's on the surface is revealed, only if one knows what's underneath.

Gauss's method was an ancient one, made famous in Plato's metaphor of the cave, and given new potency by Johannes Kepler's application of Nicolaus of Cusa's method of *Learned Ignorance*. For them, the task of the scientist was to bring into view the underlying physical principles, which can not be viewed directly—the unseen that guided the seen.

Take the illustrative case of Fermat's discovery of the principle, that refracted light follows the path of least time, rather than the path of least distance followed by reflected light. The principle of least distance is one that lies on the surface, and can be demonstrated in the visible domain. On the other hand, the principle of least time exists "behind," so to speak, the visible; it is brought into view only in the mind. On further reflection, it is clear that the principle of least time was there all along, controlling, invisibly, the principle of least distance. In Plato's terms of reference, the principle of least time is of a "higher power" than the principle of least distance.

Fermat's discovery is a useful reference point for grasping Gauss's concept of the complex domain. As Gauss himself stated unequivocally, the complex domain does not mean the formal, superficial concept of "impossible" or imaginary numbers, as developed by Euler and taught by "experts" ever since. Rather, Gauss's concept of the complex domain, like Fermat's principle of least time, brings to the surface a principle that was there all along, but hidden from view.

The Algebraic and the Transcendental

As Gauss emphasized in his jubilee re-working of his 1799 dissertation, the concept of the complex domain is a "higher domain," independent of all *a priori* concepts of space. Yet, it is a domain "in which one cannot move without the use of language borrowed from spatial images."

The issue for him, as for Gottfried Leibniz, was to find a general principle that characterized what had become known as "algebraic" magnitudes. These magnitudes, associated initially with the extension of lines, squares, and cubes, all fell under Plato's concept of *dunamis*, or *power*.

Leibniz had shown, that while the domain of all "algebraic" magnitudes consisted of a succession of higher powers, this entire algebraic domain was itself dominated by a domain of a still higher power, which Leibniz called "transcendental." The relationship of the lower domain of algebraic magnitudes, to the higher, non-algebraic domain of transcendental magnitudes, is reflected in what Jakob Bernoulli discovered about the equi-angular spiral [SEE Figure 6].

Leibniz, with Jakob's brother Johann Bernoulli, subsequently demonstrated that this higher, transcendental domain does not exist as a purely abstract principle, but originates in the physical action of a hanging chain, whose geometric shape Christiaan Huyghens called a *catenary* [SEE Figure 7]. Thus, the physical universe itself demonstrates that the "algebraic" magnitudes associated with extension, are not *generated* by extension. Rather, the algebraic magnitudes are generated from a physical principle that exists beyond simple extension, in the higher, transcendental domain.

Gauss, in his proofs of the fundamental theorem of algebra, showed that even though this transcendental physical principle was outside the domain of the visible, it nevertheless "cast a shadow" which could be



FIGURE 6. A succession of algebraic powers is generated by a self-similar spiral. For equal areas of rotation, the lengths of the corresponding radii are increased to the next power.

made visible in what Gauss called the complex domain.

As indicated in Part I, the discovery of a general principle for algebraic magnitudes was found, by looking through the "hole" represented by the square roots of negative numbers. These square roots appeared as solutions to algebraic equations, but lacked any apparent physical meaning. For example, in the algebraic equation $x^2=4$, x signifies the side of a square whose area is 4; whereas, in the equation $x^2=-4$, x signifies the side of a square whose area is -4, an apparent impossibility.

For the first case, it is simple to see that a line whose length is 2, would be the side of the square whose area is 4. However, from the standpoint of the algebraic equa-



"Given an indefinite straight line ON parallel to the horizon, given also OA, a perpendicular segment equal to O3N, and on top of 3N, a vertical segment 3N3 \$\xi\$, which has with OA the ratio of D to K, find the proportional mean 1N1 \$\xi\$ (between OA and 3N3 \$\xi\$); then, between 1N1 \$\xi\$ and 3N3 \$\xi\$ then, in turn, find the proportional mean between 1N1 \$\xi\$ and OA; as we go on looking for second proportional means in this way, and from them third proportionals, follow the curve $3\xi-1\xi-A-1(\xi)-3(\xi)$ in such a way that when you take the equal intervals 3N1N, 1NO, O1(N), 1(N)3(N), etc., the ordinates $3N3\xi$ $1N1\xi$ OA, $1(N)1(\xi)$, $3(N)3(\xi)$, are in a continuous geometric progression, touching the curve I usually

tion, a line whose length is -2, also produces the desired square of area 4. At first glance, a line whose length is -2 seems as impossible as a square whose area is -4. Yet, if you draw a square of area 2, you will see that there are two diagonals, both of which have the power to produce a new square whose area is 4. These two magnitudes are distinguished from one another only by their direction, so one is denoted as 2, and the other as -2.

Now, extend this investigation to the cube. In the algebraic equation $x^3=8$, there appears to be only one number, 2, which satisfies the equation, and this number signifies the length of the edge of a cube whose volume is 8. This appears to be the only solution to this equation, since (-2)(-2)(-2)=-8, another seeming impos-

identify as logarithmic. So, by taking ON and O(N) as equal, elevate over N and (N) the segments NC and (N)(C) equal to the semi-sum of N ξ and (N)(ξ), such that C and (C) will be two points of the catenary curve FCA(C)L, on which you can determine geometrically as many points as you wish.

"Conversely, if the catenary curve is physically constructed, by suspending a string, or a chain, you can construct from it as many proportional means as you wish, and find the logarithms of numbers, or the numbers of logarithms. If you are looking for the logarithm of number $O\omega$, that is to say, the logarithm of the ratio between OA and $O\omega$, the one of OA(which I choose as the unit, and which I will also call parameter) being considered equal to zero, you must take the third proportional $O\psi$ from $O\omega$ and OA; then, choose the abscissa as the semi-sum of OB from $O\omega$ and $O\psi$, the corresponding ordinate BC or ON on the catenary will be the sought-for logarithm corresponding to the proposed number. And reciprocally, if the logarithm ON is given, you must take the double of the vertical segment NC dropped from the catenary, and cut it into two segments whose proportional mean should be equal to OA, which is the given unity (it is child's play); the two segments will be the sought-for numbers, one larger, the other smaller, than 1, corresponding to the proposed logarithm."

-from G.W. Leibniz, "Two Papers on the Catenary Curve and Logarithmic Curve," from "Acta Eruditorum" (1691) [Fidelio, Spring 2001 (Vol X, No. 1)].



FIGURE 8 An example of the three solutions to the trisection of an angle.

sibility. The anomaly, that there are two solutions in the case of a quadratic equation, seems to disappear in the case of the cube, for which there appears to be only one solution.

Trisecting an Angle

But, not so fast. Look at another geometrical problem which, when stated in algebraic terms, poses the same paradox: the trisection of an arbitrary angle. Like the doubling of the cube, Greek geometers could not find a means for trisecting an arbitrary angle, from the principle of circular action itself. The several methods discovered (by Archimedes, Eratosthenes, and others) to find a general principle of trisecting an angle, were similar to those found by Plato's collaborators, for doubling the cube. That is, this magnitude could not be constructed using only a circle and a straight line, but it required the use of extended circular action, such as conical action. But, trisecting an arbitrary angle presents another type of paradox which is not so evident in the problem of doubling the cube. To illustrate this, perform the following experiment:

Draw a circle [SEE Figure 8]. For ease of illustration, mark off an angle of 60°. It is clear that an angle of 20° will trisect this angle. Now add an entire circular rotation to the 60° angle, making an angle of 420°. It appears these two angles, 60° and 420°, are essentially the same. But, when 420° is divided by 3, we get an angle of 140°. Add another 360° rotation, and we get to the angle of 780°, which appears to be exactly the same as the angles of 60° and 420°. Yet, when we divide 780° by 3 we get 260°. Keep this up, and you will see that the same pattern is repeated over and over again.

Looked at as a "sense certainty," the 60° angle can be trisected by only one angle, the 20° angle. Yet, when looked at beyond sense certainty, there are clearly three angles that "solve" the problem.

This illustrates another "hole" in the algebraic determination of magnitude. In the case of quadratic equations, there seem to be two solutions to each problem. In some cases, such as x^2 =4, those solutions seem to have a



FIGURE 9. In (a), the lengths of the radii are squared as the angle of rotation doubles. In (b), the lengths of the radii are cubed as the angle of rotation triples.

visible existence; whereas for the case $x^2 = -4$, there are two solutions, $2\sqrt{-1}$ and $-2\sqrt{-1}$, both of which seem to be "imaginary," having no physical meaning. In the case of cubic equations, sometimes there are three visible solutions, such as in the case of trisecting an angle. But in the case of doubling the cube, there appears to be only one visible solution, but two "imaginary" solutions: $-1 - (\sqrt{3})(\sqrt{-1})$; and $-1 + (\sqrt{3})(\sqrt{-1})$.

Bi-quadratic equations, such as $x^4=16$, which seem to have no visible meaning themselves, have four solutions, two "real" (2 and -2) and two "imaginary" ($2\sqrt{-1}$ and $-2\sqrt{-1}$).

Things get even more confused for algebraic magnitudes of still higher powers. This anomaly poses the question resolved by Gauss in his proof of what he called the "fundamental theorem" of algebra: *How many solutions are there for any given algebraic equation?*

The "shallow"-minded mathematicians of Gauss's day, such as Euler, Lagrange, and D'Alembert, took the superficial approach of answering, that an algebraic equation will have as many solutions as it has powers, even though some of those solutions might be "impossible," such as the square roots of negative numbers. (This sophist's argument is analogous to saying, "There is a difference between man and beast; but this difference is meaningless.")

Shadows of Shadows: The Complex Domain

Gauss, in his 1799 dissertation, polemically exposed this fraud for the sophistry it was: "If someone would say a rectilinear equilateral right triangle is impossible, there will be nobody to deny that. But, if he intended to consider such an impossible triangle as a new species of triangles and to apply to it other qualities of triangles, would anyone refrain from laughing? That would be playing with words, or rather, misusing them."

For Gauss, no magnitude could be admitted, unless its principle of generation were demonstrated. For magnitudes associated with the square roots of negative numbers, that principle was the complex physical action of *rotation combined with extension*. Gauss called the magnitudes generated by this complex action, "complex numbers." Each complex number denoted a quantity of combined rotational and extended action.

The unit of action in Gauss's complex domain is a circle, which is one rotation, with an extension of one (unit length). In this domain, the number 1 signifies one complete rotation; -1, half a rotation; $\sqrt{-1}$, one-fourth of a rotation; and $-\sqrt{-1}$, three-fourths of a rotation [Figure 5].

These "shadows of shadows," as he called them, were

only a visible reflection of a still higher type of action, which was independent of all visible concepts of space. These higher forms of action, although invisible, could nevertheless be brought into view as a projection onto a surface.

Gauss's approach is consistent with that employed by the circles of Plato's Academy. In ancient Greek, the word for surface, *epiphaneia* (it is the root of the English word "epiphany"), can be understood to mean the concept, "that on which something is brought into view."

From this standpoint, Gauss demonstrated, in his 1799 dissertation, that the fundamental principle of generation of any algebraic equation, of no matter what power, could be brought into view, "epiphanied," so to speak, as a surface in the complex domain. These surfaces were visible representations not—as in the cases of lines, squares, and cubes—of what the powers produced, but of the *principle* that produced the powers.

To construct these surfaces, Gauss went outside the simple visible representation of powers—such as squares and cubes—by seeking a more general form of powers, as exhibited in the equi-angular spiral [SEE Figure 9]. Here, the generation of a power, corresponds to the extension produced by an angular change. The generation of square powers, for example, corresponds to the extension that results from a doubling of the angle of rotation, within the spiral [Figure 9(a)]; and the generation of cubed powers corresponds to the extension that results from tripling the angle of rotation, within that spiral [Figure 9(b)]. Thus, it is the *principle of squaring* that produces square magnitudes, and the *principle of cubing* that produces cubics.

In Figure 10, the complex number z is "squared" when the angle of rotation is doubled from x to 2x, and the length squared from A to A^2 . In doing this, the smaller circle maps twice onto the larger, "squared" circle, as



FIGURE 10. Squaring a complex number.





FIGURE 12. The sine of angle x is the line Pz, and the cosine of x is OP. The sine of 2x is the line P'Q, and the cosine is OP'.

FIGURE 13. Variations of the sine and cosine from the squaring of a complex number, for four quadrants, as angle x rotates from 0° to 360° .



we showed in Part I. In Figure 11, the same principle is illustrated with respect to cubing. Here the angle x is tripled to 3x, and the length A is cubed to A^3 . In this case, the smaller circle maps three times onto the larger, "cubed" circle. And so on for the higher powers. The fourth power maps the smaller circle four times onto the larger. The fifth power, five times, and so forth.

This gives a general principle that determines all algebraic powers. From this standpoint, all powers are reflected by the same action. The only thing that changes with each power, is the number of times that action occurs. Thus, each power is distinguished from the others, not by a particular magnitude, but by a topological characteristic.

In his doctoral dissertation, Gauss used this principle to generate surfaces that expressed the essential characteristic of powers in an even more fundamental way. Each rotation and extension produced a characteristic right triangle. The vertical leg of that triangle is the *sine*, and the horizontal leg of that triangle is the *cosine* [SEE Figure 12]. There is a cyclical relationship between the sine and cosine, which is a function of the angle of rotation. When the angle is 0, the sine is 0, and the cosine is 1. When the angle is 90°, the sine is 1, and the cosine is 0. Looking at this relationship for an entire rotation, the sine goes from 0, to 1, to 0, to -1, and back to 0; while the cosine goes from 1, to 0, to -1, to 0, and back to 1 [SEE Figure 13].

In Figure 13, as z moves from 0 to 90°, the sine of the angle varies from 0 to 1; but at the same time, the angle for z^2 goes from 0 to 180°, and the sine of z^2 varies from 0 to 1, and back to 0. Then, as z moves from 90° to 180°, the sine varies from 1 back to 0, but the angle for z^2 has moved from 180° to 360°, and its sine has varied from 0, to -1, to 0. Thus, in one half rotation for z, the sine of z^2 has varied from 0, to 1, to 0, to -1, to 0.

In his doctoral dissertation, Gauss represented this complex of actions as a surface [SEE Figures 14, 15, and 16, and inside back cover, this issue]. Each point on the surface is determined such that its height above the flat plane, is equal to the distance from the center, times the sine of the angle of rotation, as that angle is increased by the effect of the power. In other words, the *power* of any point in the flat plane, is represented by the height of the surface above that point. Thus, as the numbers on the flat surface move outward from the center, the surface grows higher according to the power. At the same time, as the numbers rotate around the center, the sine will pass from positive to negative. Since the numbers on the surface are the powers of the numbers on the flat plane, the number of times the sine will change from positive to negative, depends on how much the power multiplies the angle (double for square powers, triple for cubics, etc.). Therefore, each surface will have as many "humps" as the equation has dimensions.



FIGURE 14. A Gaussian surface for the second power.



FIGURE 15. A Gaussian surface for the third power.



FIGURE 16. A Gaussian surface for the fourth power.

Consequently, a quadratic equation will have two "humps" up, and two "humps" down [Figure 14]. A cubic equation will have three "humps" up, and three "humps" down [Figure 15]. A fourth-degree equation will have four "humps" in each direction [Figure 16]; and so on.

Gauss specified the construction of two surfaces for each algebraic equation, one based on the variations of the sine and the other based on the variations of the cosine [SEE Figure 17]. Each of these surfaces will define definite curves on the flat plane intersected by the surfaces [SEE Figure 18]. The number of curves will depend on the number of "humps," which in turn depend on the highest power.

Since sine and cosine surfaces are rotated 90° to each other, the curves on the flat plane will intersect each other, and the number of intersections will correspond to the number of powers. If the flat plane is considered to be zero, these intersections will correspond to the solutions, or "roots" of the equation. This proves that an algebraic equation has as many roots as its highest power [Figure 18].

The Principle of Powers

Step back and look at this work. These surfaces were produced, not from visible squares or cubes, but from the general principle of squaring, cubing, and higher powers.



FIGURE 17. (a) Combines the surfaces that are based on the variations of the sine and cosine for the second power. (b) Combines the surfaces that are based on the variations of the sine and cosine for the third power.



FIGURE 18. Number of roots to algebraic equations. (a) Intersection of the surfaces for the second power [Fig. 17 (a)] with the flat plane. (b) Intersection of the surfaces for the third power [Fig. 17 (b)] with the flat plane.

They represent, metaphorically, a principle that manifests itself physically, but cannot be seen. By projecting this principle—the general form of Plato's *powers*—onto these complex surfaces, Gauss has brought the invisible into view, and made intelligible what is incomprehensible in the superficial world of algebraic formalism.

The effort to make intelligible the implications of the complex domain, was a focus for Gauss throughout his life. Writing to his friend Hansen on Dec. 11, 1825, Gauss said:

These investigations lead deeply into many others, I would even say, into the Metaphysics of the theory of space, and it is only with great difficulty that I can tear myself away from the results that spring from it, as, for example, the true metaphysics of negative and complex numbers. The true sense of the square root of -1 stands before my mind fully alive, but it becomes very difficult to put it in words; I am always only able to give a vague image that floats in the air.

It was here, that Bernhard Riemann began.

AFTERWORD

Dialogue on the Fundamentals of Sound Education Policy

Lyndon H. LaRouche, Jr. responds to a question on education reform sent to his Presidential campaign website.

* * *

Sometimes, even often, perhaps, the best way to attack an apparently nebulous subject-matter, such as today's animal-training of students to appear to pass standardized designs of tests, is to flank the apparent issue, in order to get to the deeper, underlying issues which the apparent subject-matter merely symptomizes. I respond accordingly.

There is a growing number of persons, chiefly university students, who have become active in our work here, and who represent special educational needs and concerns. These concerns include the insult of being subjected to virtually information-packed, but knowledge-free, and very high-priced education. More significant, is being deprived of access to the kind of knowledge to which they ought to have access as a matter of right. In various sessions in which they have tackled me in concentrations of one to several score individuals each, many of the topics posed add up to a challenge to me: "What are you going to do to give us a real education?" There is nothing unjust in that demand; I welcome it. However, delivering the product in a relatively short time, is a bit of a challenge. I have supplied some extensive answers to that sort of question, but let me reply to your question by focussing upon what I have chosen as the cutting-edge of the package I have presented.

In the same period he was completing his Disquisitiones Arithmeticae, young Carl Gauss presented the first of his several presentations of his discovery of the fundamental theorem of algebra. In the first of these he detailed the fact that his discovery of the definition and deeper meaning of the complex domain provided a comprehensive refutation of the anti-Leibniz doctrine of "imaginary numbers" which had been circulated by Euler and Lagrange. Gauss, working from the standpoint of the most creative of his Göttingen professors, Kästner, successfully attacked the problem of showing the folly of Euler's and Lagrange's work, and gave us both the modern notion of the complex domain, as well as laving the basis for the integration of the contributions of both Gauss and Dirichlet under the umbrella of Riemann's original development of a true anti-Euclidean (rather than merely non-Euclidean) geometry.

In his later writings on the subject of the fundamental theorem, Gauss was usually far more cautious about attacking the reductionist school of Euler, Lagrange, and Cauchy, until near the end of his life, when he elected to make reference to his youthful discoveries of anti-Euclidean geometry. Therefore, it is indispensable to read his later writings on the subject of the fundamental theorem in light of the first. From that point of view, the consistency of his underlying argument in all cases, is clear, and also the connection which Riemann cites in his own habilitation dissertation is also clarified.

The Central Issue of Method

Now, on background. Over the past decades of arguing, teaching, and writing on the subject of scientific method, I have struggled to devise the optimal pedagogy for providing students and others with a more concise set of cognitive exercises by means of which they might come to grips with the central issue of method more quickly. I have included the work of Plato and his followers in his Academy, through Eratosthenes, and moderns such as Brunelleschi, Cusa, Pacioli, Leonardo, Kepler, Fermat, Huyghens, Bernoulli, and Leibniz, among others of that same anti-reductionist current in science. All that I can see in retrospect as sound pedagogy, but not yet adequate for the needs of the broad range of specialist interest of the young people to whom I have referred. I needed something still more concise, which would establish the crucial working-point at issue in the most efficient way, an approach which would meet the needs of such a wide range of students and the like. My recent decision, developed in concert with a team of my collaborators on this specific matter, has been to pivot an approach to a general policy for secondary and university undergraduate education in physical science, on the case of Gauss's first presentation of his fundamental theorem.

Göttingen's Leipzig-rooted Abraham Kästner, was a universal genius, the leading defender of the work of Leibniz and J.S. Bach, and a key figure in that all-sided development of the German Classic typified by Kästner's own Lessing, Lessing's collaborator against Euler et al., Moses Mendelssohn, and such followers of theirs as Goethe, Schiller, and of Wolfgang Mozart, Beethoven, Schubert, the Humboldt brothers, and Gerhard Scharnhorst. On account of his genius, Kästner was defamed by the reductionist circles of Euler, Lagrange, Laplace, Cauchy, Poisson, et al., to such a degree that plainly fraudulent libels against him became almost an article of religious faith among reductionists even in his lifetime, down to modern scholars who pass on those frauds as eternal verities to the present time. Among the crucial contributions of Kästner to all subsequent physical science, was his originating the notion of an explicitly anti-Euclidean conception of mathematics to such followers as his student the young Carl Gauss. Gauss's first publication of his own discovery of the fundamental theorem of algebra, makes all of these connections and their presently continued leading relevance for science clear.

Platonic vs. Reductionist Traditions

This shift in my tactics has the following crucial features.

The crucial issue of science and science education in European civilization, from the time of Pythagoras and Plato, until the present, has been the division between the Platonic and reductionist traditions. The former as typified for modern science by Cusa's original definition of modern experimental principles, and such followers of Cusa as Pacioli, Leonardo, Gilbert, Kepler, Fermat, *et al.* The reductionists, typified by the Aristoteleans (such as Ptolemy, Copernicus, and Brahe), the empiricists (Sarpi, Galileo, *et al.*, through Euler and Lagrange, and beyond), the "critical school" of neo-Aristotelean empiricists (Kant, Hegel), the positivists, and the existentialists. This division is otherwise expressed as the conflict between reductionism in the guise of the effort to derive physics from "ivory tower" mathematics, as opposed to the methods of (for example) Kepler, Leibniz, Gauss, and Riemann, to derive mathematics, as a tool of physical science, from experimental physics.

The pedagogical challenge which the students' demands presented to me and to such collaborators in this as Dr. Jonathan Tennenbaum and Mr. Bruce Director, has been to express these issues in the most concise, experimentally grounded way. All of Gauss's principal work points in the needed direction. The cornerstone of all Gauss's greatest contributions to physical science and mathematics is expressed by the science-historical issues embedded in Gauss's first presentation of his discovery of the fundamental theorem of algebra.

All reductionist methods in consistent mathematical practice depend upon the assumption of the existence of certain kinds of definitions, axioms, and postulates, which are taught as "self-evident," a claim chiefly premised on the assumption that they are derived from the essential nature of blind faith in sense-certainty itself. For as far back in the history of this matter as we know it today, the only coherent form of contrary method is that associated with the term "the method of hypothesis," as that method is best typified in the most general way by the collection of Plato's Socratic dialogues. The cases of the Meno, the Theatetus, and the Timaeus, most neatly typify those issues of method as they pertain immediately to matters of the relationship between mathematics and physical science. The setting forth of the principles of an experimental scientific method based upon that method of hypothesis, was introduced by Nicolaus of Cusa, in a series of writings beginning with his De Docta Ignorantia. The modern Platonic current in physical science and mathematics, is derived axiomatically from the reading of Platonic method introduced by Cusa. The first successful attempt at a comprehensive mathematical physics based upon these principles of a method of physical science, is the work of Kepler.

From the beginning, as since the dialogues of Plato, scientific method has been premised upon the demonstration that the formalist interpretation of reality breaks down, fatally, when the use of that interpretation is confronted by certain empirically well-defined ontological paradoxes, as typified by the case of the original discovery of universal gravitation by Kepler, as reported in his 1609 *The New Astronomy*. The only true solution to such paradoxes occurs in the form of the generation of an hypothesis, an hypothesis of the quality which overturns some existing definitions, axioms, and postulates, and also introduces hypothetical new universal principles. The validation of such hypotheses, by appropriately exhaustive experimental methods, establishes such an hypothesis as what is to be recognized as either a universal physical principle, or the equivalent (as in the case of J.S. Bach's discovery and development of the principles of composition of well-tempered counterpoint).

The Geometry of the Complex Domain

Gauss's devastating refutation of Euler's and Lagrange's misconception of "imaginary numbers," and the introduction of the notion of the physical efficiency of the geometry of the complex domain, is the foundation of all defensible conceptions in modern mathematical physics. Here lies the pivot of my proposed general use of this case of Gauss's refutation of Euler and Lagrange, as a cornerstone of a new curriculum for secondary and university undergraduate students.

Summarily, Gauss demonstrated not only that arithmetic is not competently derived axiomatically from the notion of the so-called counting numbers, but that the proof of the existence of the complex domain within the number-domain, showed two things of crucial importance for all scientific method thereafter. These complex variables are not merely powers, in the sense that quadratic and cubic functions define powers distinct from simple linearity. They represent a replacement for the linear notions of dimensionality, by a general notion of extended magnitudes of physical spacetime, as Riemann generalized this from, chiefly, the standpoints of both Gauss and Dirichlet, in his habilitation dissertation.

The elementary character of that theorem of Gauss, so situated, destroys the ivory-tower axioms of Euler *et al.* in an elementary way, from inside arithmetic itself. It also provides a standard of reference for the use of the term "truth," as distinct from mere opinion, within mathematics and physical science, and also within the domain of social relations. Those goals are achieved only on the condition that the student works through Gauss's own cognitive experience, both in making the discovery and in refuting reductionism generically. It is the inner, cognitive sense of "I know," rather than "I have been taught to believe," which must become the clearly understood principle of a revived policy of a universalized Classical humanist education.

Once a dedicated student achieves the inner cognitive sense of "I know this," he, or she has gained a benchmark against which to measure many other things.

> —Lyndon H. LaRouche, Jr. April 12, 2002

Homer, crowned by the World (Oikumene) and Time (Chronos), and acclaimed by the Arts and Virtues. Detail of marble relief by Archelaos of Priene, c. 200 B.C.



The Granger Collection

Homer, The Blind Seer

by Rosa Tennenbaum

E uropean thought begins with the Greeks. Man was from the outset man; but, at first, his special qualities had to be discovered, little by little. Our thinking developed historically; in prehistoric times, the "childhood of man," man was not yet even conscious of himself, he still bordered close "to animalness," as Friedrich Schiller expressed it. Human thought emerged in an ascending process of continuous discoveries and acts of cognition. Thus was physical man elevated to the complex, individual personality.

The Greeks ventured upon this voyage of discovery of the essence of man. They discovered the human intellect, they gave mankind his soul. Of course, intellect and soul were specific to our own species from the very beginning; yet, man was not conscious of them, and for this reason they lacked existence. They only became so, by being discovered; it was through knowledge that they first stepped into the phenomenological world. This discovery formed the basis of a transformed, new conception of man.

The beginning of this great voyage of discovery is to be found in Homer, who presented his great epics, the *Iliad* and the *Odyssey*, in the Eighth century B.C. Great poems, and an advanced civilization, had existed earlier, but they have not been handed down to posterity, or only through fragmentary evidence. Homer himself speaks little about his own time in his poems; rather, he sings the praises of an old, long destroyed epoch, which he calls the "Golden Age."

The Golden Age of Homer

Crete is a land in the dark, surging sea Surrounded on all sides, fertile and lovely. Countless Men live there, and their cities are ninety.

At the beginning of the Second millennium B.C.—a time which was as distant from Homer, as Homer is from us—a great civilization had already begun to develop on Crete, the great island in the Mediterranean Sea, which reached its high point around the last quarter of the millennium. Modern excavations have brought to light magnificent structures, expansive palaces, and countless small writing tablets. This writing is known as "Linear A," and has not been deciphered to this day. Trade thrived in this period; fine pottery work and precious textiles were exported to Egypt and the Greek mainland. Art works also reached a pinnacle of development. This epoch has been called Minoan civilization, after the mythical King Minos, who ruled the island from the city of Knossos. Minos is famous as the first ruler to govern an organized state with firmly established laws.

In the second half of the millennium, far from Crete, on the Greek mainland or Peloponnese, a new, advanced civilization superseded the Minoan. Today, in Mycenae and Tiryns, huge walls and magnificent palaces still attest to the former power of these centers. Precious textiles and the finest pottery found their way as far as Cyprus and Syria, in the south over the Cyclades as far as Egypt, in the west as far as Italy and Spain, and in the north though Boetia and Thessaly up to the Baltic Sea coast. This prosperous time has been named for "gold-rich Mycenae," the city that formed the center of Mycenaean civilization. [SEE Map, page 45, this issue]

Their script, which we call "Linear B," has been deciphered, so that we possess manifold evidence of their highly developed political regime, of their tariff system, and so forth. Mycenaean culture spread throughout the entire Mediterranean world, and over the newly founded colonies on the Aegean Islands and the continent of Asia Minor.

In the last quarter of the second millennium, this culture suddenly perished. Its towns were destroyed; trade came to a standstill—the basis of life was annihilated. The cause of this catastrophe is not known to us—one can only guess, whether it was a horrible earthquake, or the invasion of the so-called Peoples of the Sea, or if this great migration of people, which shook the entire eastern Mediterranean at about that time, was the trigger. With the destruction of the Mycenaean palaces, the political centers and the social system disintegrated. The survivors abandoned the cities and fell back inland, where they managed to exist in small villages, or migrated. Crete, Asia Minor, and Cyprus were the preferred places of refuge. The destruction of the city of Troy falls into this period.

A dark age overtook Greece. Depopulation, impoverishment, and isolation were the characteristics. Greek civilization reverted back to the condition of simple peasant farming in a feudal society. Writing was lost; the developed techniques in crafts, art, and architecture were forgotten. Richly decorated bowls were now replaced by simple, straight pottery of practical use value, which was elaborately trimmed with crude, geometrically stylized ornamentation. Hence, this epoch is also known as the Geometric Period.

During this dark age, mankind preserved the memory of the glorious

Mycenaean civilization. In many places, the huge walls and palace ruins still stood, in whose shadow the older generation passed on its memories of this splendid past to the young. Thus, a cycle of interwoven legends and myths developed. These memories were guarded especially fervently in those places where colonizers had developed new homelands. There, where no trace of the advanced Mycenaean civilization was present, memories and preservation of tradition were passed on by word of mouth. It is here that the sources of the legends of heroes, which inspired Homer and the later tragic poets in their works, are to be found. This dark age lasted almost four centuries. In the Ninth century B.C., the rebirth gradually began, accelerating in the Eighth century. That was the century of Homer. [SEE Map, page 7, this issue]

Homer

The exact origin of the "Father and ancestor of all poets," as the poet Goethe called him, is not known. He came from northern Asia Minor; his home was in the Aeolian-Ionian border region, actually in Smyrna, today's Izmir (Turkey). An old "Legend of Homer the Travelling Bard," which dates back to at least the Sixth century B.C., places him there, and his language, which mixes Aeolian and Ionian Greek, likewise shows evidence of it. Homer created a poetically dramatic language in his epics, which was distinct from everyday speech.

In this ancient legend, which no doubt soon after Homer's death was told by the rhapsodes, Homer wandered through the towns Smyrna, Colophon, Kyme, Phodaia, Erythrae, and lingered for awhile at the court of a Dardanelles lord in Troas, the broad plains surrounding Troy. Earlier, he had seen the world on the ship of a friendly merchant—now he wandered, already



A Dark Age separated Mycenaean civilization, which includes the Trojan War period, from the era in which Homer composed the "Iliad" and "Odyssey."

blind, as a bard through the land. For some time he lived and worked on the island of Chios, where in the Seventh century King Hector ruled. Here, he established his own school, achieved fame and prosperity, and attended the funeral games and religious festivals throughout Hellas, as a highly esteemed poet. From this point on he also established a bard's guild, called the "Homereidon," which Plato relates to us in the *Ion*. Presumably, he died on the island of Ios, which boasts of harboring his grave.

In 1795, Friedrich August Wolf unleashed an avalanche by asserting in the foreword to his Homer translation, the "Prolegomena to Homer," based on a great deal of scholarship, that Homer was illiterate, and that, therefore, the monumental epics, the *Iliad* and *Odyssey*, could not have been composed by one and the same person. Presumably, they were handed down orally through the centuries, obtaining their final form through this long process. The academic world split into two irreconcilable camps, in the course of which Wolf's followers split up the poem into ever smaller pieces. Goethe accused Wolf of having "killed the poet," and of ravaging "the most fruitful garden of the aesthetical realm."

Ilias

- The wreath of Homer is rent to pieces, and the fathers are enumerated Of this perfected, eternal work!
- But it had one mother only and the mother's features,

Your immortal features, Nature.

This fight is still continuing. Nowadays, most scholars are of the opinion that the *Iliad* and *Odyssey* were both originally written down, but by different poets. Homer wrote the older work, the *Iliad*, and the later *Odyssey* was written by another, anonymous poet, they say. This they deduce not least from the age of both works, whereby it is assumed that the poem about Odysseus's journey home follows the history of the Trojan War by about fifty years.

Thus, the world's greatest writer of epics, Homer, shares a fate with the world's greatest dramatist, Shakespeare. People begrudge them the authorship of their works, because the works are simply too great to have been composed by a single individual. But, conclusive evidence can not be presented to this day. Differences in grammatical usage between the two Homeric epics, which are seized on by the philologist, could just as well have originated from the tradition of oral delivery, as from two different authors. It was in the Third century B.C. that the final version of the text was constructed. Over the previous four centuries, countless different versions had come into circulation. These were then edited and collated together into a single edition by the scholars of the legendary library of Alexandria in Egypt. We can therefore confidently hold to the idea, that Homer is the father of both epics.

Of Bards and Rhapsodes

In the *Ion* dialogue, Plato sketches, in the image of one of the famous bards of his time, Ion of Ephesus, a lively picture of the rhapsodes and their works, and the effect their art had on the audience. The rhapsode travelled from city to city, reciting his hymns at musical festivals, often competing with other bards. In rich clothing and wearing a golden wreath, he would stand on a small platform in the middle of an audience of 20,000 people—that is, the population of an entire city or town. He sang the epics of other great poets too, of Hesiod and of Archilochos, for example, but especially of Homer, and was proud to be able to recite on request, from memory, if desired, any beloved passage from the great works. Nothing captivated the public like Homer's poems.

The minstrels journeyed from court to court of the nobility, reciting their songs and accompanying themselves on the lyre. Homer describes such a bard and his background in Book VIII of the *Odyssey*. In Homer's lifetime, the simple bard was transformed into the "rhapsode"—emerging from the halls of the nobility to be among the common people. The epic poem grew to great epics this way. No longer did the rhapsodes orient to court society, but they turned to the festival gatherings, which united all of local society. The simple lyres, whose sound died away in the great plazas, must have undergone further development. And so, the musical epoch of the Greeks was awakened also.

It might have been these developments which motivated the bards to lay aside their lyres, and to take up the staff. The staff was the sign of territorial power; kings, judges, and orators in the assembly had been carrying them for a long time; now, the bard would also be provided with this token of god-like worth. The old bard, the Greek *aoidos* [$\dot{\alpha}$ ou $\delta \dot{\alpha}$ 5] became the reciter, the rhap-sode (*raps-odos* [$\dot{\alpha}$ au $\phi \delta \dot{\alpha}$ 5]). His verse is the epic hexameter.

The bard's skill was a trade, or profession. They would impart the rules of epic songs and the works of important predecessors though an apprenticeship. Homer says of the bards who appear in his works, that they sing "artistically" and "entirely in order," and he speaks of "the right way and the proper development of the narration." Through this instruction, amateur performance was prevented and an enduring standard secured, and here may lie the basis for the ultimate prestige of the
poet and his great art, to outlive many centuries and to constantly renew itself. The outcome of this apprenticeship might not be an absolutely "divine bard," but in each case, an expert—one who knew his trade.

The bard "hears the tidings" which blow across from olden times, he reports on the past, but also "the most recent news" is found in his poems. He chooses his themes from the old myths and legends, which portrayed traditional reality, living history for the Greeks, and his art endures therein, thus to relate, to examine and to connect anew, these well-known events, so that, creatively, something new resulted. The muses themselves teach their favorite the "elevated song." Mnemosyne, memory,

helps him to bring his songs to a close, and wisdom, truth, and virtue attend him.

The rhapsodes were the stewards of Homer's heritage and the carriers of this knowledge right into the heart of the Fifth century B.C., the Golden Age of Greece. Although writing was already in use, one still taught through speaking, and learned through listening. Not only did the great rhapsodes of antiquity know Homer's works by heart, but they could recite other wellknown works freely, too. An important aid in this enormous accomplishment of memory was the Greek hexameter. The word signifies six measures, as the three-syllable dactyllic sequence longshort-short, which formed the verse foot, was repeated six times. In the middle of each line of verse, a pause, or

caesura, was inserted; while the last foot in the line was shortened to two syllables, long-short or long-long. Since, on reflection, a long syllable could also be reduced to two short syllables, or two short syllables to a long one, great freedom was given to the poet, and diversity to the hearer.

For Wilhelm von Humboldt, hexameter was "simultaneously the essence and keynote of all harmony of men and creation. When one marvels at how it was possible, to confine such an extent and depth in such simple borders, when one considers, that this particular verse is the foundation of all other poetical rhythms, and that without the magic of these harmonies the wonderful secrets of nature and creation would remain eternally inaccessible, then one tries to no purpose, to explain the origin of such a suddenly appearing phenomenon." Greek speech was very musical: Humboldt called it "pure music." This musicality was further strengthened through the form and rhythm of the hexameter. The Greeks, "an eternally talkative and singing people," could immediately in their language "combine such wonderful music with the impression of thoughts, that to them, the separation of music and poetry remained alien."

Writing

The epoch of writing begins with Homer. Greek merchants traded with the Phoenicians, a Semitic people who lived in what is today Lebanon, whose writing they became acquainted with and brought home with them. Individual characters were no longer used to represent an

> entire syllable, as was the case with Linear B, but instead, they stood for particular, individual sounds. There were no vowels in the Phoenician alphabet, only consonants. The Greeks adopted the phonetic names of the letters, but assigned different sounds to them, which were familiar to the Greek tongue. They also added vowels. So "alep" and "bet," the first letters of the Phoenician alphabet, became "alpha" and "beta," and our word "alphabet" is a reminder of this origin.

> How important these innovations were becomes clear, when one considers, for example, the possible meanings of the consonant series "m-r" in English: moor, mare, mere, emir, more. With the addition of vowels, it was no longer necessary to consider what was intended, since the writing had attained

clarity and comprehensibility. These innovations show that the Greek strove for clarity and truth in thought, and didn't rest until he could express this clarity also in writing. This process was completed before the Eighth century B.C. Before that, writing was needed primarily for practical purposes, to itemize an inventory, to compile sacrifice lists, or in order to worship the name of a god. That now changed.

Homer's *Iliad* is the first work of universal literature which has survived in its entirety, and the first of European literature in general. We owe this good fortune to the scholars in Alexandria, who in the Third and Second centuries before Christ, gathered and organized the Classical Greek texts, along with the multitude of degenerate text versions which circulated. They brought together a number of the works of the great tragic poets, and both Homer's epics, in a collected edition, which is the version that has been passed down to us in full. Aeschylus,



Rhapsode, with staff. Detail from amphora, c. 480 B.C.

Sophocles, and Euripides alone had composed well over 300 works combined, of which only 32—the ones included in the edition collected in Alexandria—survive in their entirety. All the others are completely, or in great part, lost.

It is scarcely conceivable that a work like the *Iliad* could have been composed without making use of the aid of writing. And, why should one deny to Homer, of all people, who was apparently a highly educated man, the ability to use writing? In any case, the comprehensive necessity of writing begins with him; writing was no longer used only as a useful mnemonic aid, it now served also to retain, organize, and pass on ideas and images—and therefore, mental processes.

Until the *Iliad*, only oral poetry existed in Greece, which was transmitted from generation to generation of minstrels. Out of the three great cycles of legends, a socalled Epic Cycle had developed, which were the stories that related the history before and after the Trojan War and the journey home of the heroes. Since these poems were passed on orally, they have all been lost, with the exception of small fragments. We know them only indirectly, by way of hints and quotes of the ancient poets and historians. Poetry naturally succumbed to great alterations with this form of transmission.

The bards had developed a supply of formulary figures of speech and embellished adjectives over the course of the years, which made it easier for them to organize the poem and to bring the verse line to a close. We find many such formulations in Homer: "horse-taming Trojans," "metal-shielded Achaeans," "lily-armed Hera," "wily Odysseus," "the pointed ships," "the people's shepherd Agamemnon." And entire phrases, such as: "as the

dawning day awoke with rosy fingers"; "and spoke the following words"; "one thing I say still to you, and you keep it in your heart"; "they raised their hands to savory prepared meals"; and so forth. Numerous such elements of oral poetry influenced Homer's works. Also, the treasure of myths and legends, which Homer expanded for his audience in both of his epics, resulted from and was handed down through oral poetry.

The Eighth century bore witness to the diverse changes of a new epoch. With the close of the dark age, the conditions of life gradually improved, population increased, and the settlements moved together. The *"polis"*—city or state—began to develop. No longer were the courts of the nobility at the center of society, but rather, the market-place, the *"agora,"* takes their place. Homer

himself speaks of these changes. In Book XVIII of the *lli-ad* he describes, for example, the shield which the god Hephaestos forged for Achilles. One of its numerous scenes portrays a city at peace, and a city at war. The city at peace shows a legal proceeding: two men accuse each other. Both sides would present evidence, which was heard by the council of elders. This council also passed sentence. The scene takes place in the *agora*, the hearing is public, and many people attend.

Here, Homer is describing a scene, as it would have occurred during his lifetime, in the developing *polis*. No longer does a nobleman pass judgment, but rather, the citizens, who come from among the people, do; the circumstances point clearly in the direction of democracy by this time. And, with it, the image of the heroes changes. The classic hero and great deeds of the typical heroic cycle are no longer the center of interest; instead, man *in his afflictions* moves to the focal point.

Troy

Formerly was Priam's city praised by men of many languages Far across the earth as rich in gold and ore.

In 1871, when Heinrich Schliemann excavated the ruined city of Troy under the hill of Hisarlik in Turkey, it created an unprecedented sensation, because, by then, scholars had banished Homer's epic to the realm of "absolute" poetry. Now Schliemann, an amateur archeologist, uncovered parts of a great settlement from the ruins, and even found a splendid gold treasure, which he called the Treasure of Priam. He was guided in his search



Warriors arming for battle. Detail from wine mixing bowl by Euponios and Euxitheos, c. 515 B.C.

by Homer's text, and proved that the legendary Troy, or Ilium, as the city was called in antiquity, had, in fact, existed. But then, did the great Trojan War, which formed the powerful scenes in the *Iliad*, also occur?

Troy, the "city full of splendid houses," was situated only six kilometers south of the Bosporus, and controlled the entrance to the Dardanelles. This strategically favorable position, as the link between the Orient and the Occident, gave rise to the business affluence and the political power of the "Pearl of Asia," as it was

also called. Troy controlled the general shipping lanes between the Aegean and the Black Sea, and levied transit duties on goods which had to pass through the straits. Since harsh southerly currents prevail at the entrance to the Propontis, many ships had to unload their freight, or spend time in the Trojan port, until the storms subsided and the winds were favorable for an entrance. That was to the advantage of Troy, and its riches and power aroused the jealousy of rival powers, and led again and again to armed conflicts.

The first permanent settlement in Troy that we know of today, already existed 3,000 years before Christ. The city was frequently destroyed, through wars, earthquakes, and blight, and rebuilt again and again from the rubble of the destroyed city. Archeologists have identified ten different layers, and accordingly located ten historical epochs of the settlement's history. In the Fifteenth century A.D., after over 4,000 years of settlement history, the hill was finally abandoned. The layers, which at the time of the *Iliad* formed a powerful city, and whose destruction the Greek scholar Eratosthenes calculated to be the year 1184 B.C., are known as Troy VI and Troy VIIa.*

Thirteen years ago, Troy was excavated again, and the discoveries of just the past five years have strengthened the importance of Homer's historical authority considerably, without that having been the intention of the researchers.

The upper city was already known. It formed the government quarter and was situated on a wall-reinforced citadel. But an extensive city was uncovered underneath, with a defensive moat, gates, and a wall surrounding it an extensive settlement, in which well up to 10,000 people



A warrior preparing to leave home. Wine cup, c. 490-480 B.C.

might have lived. Historic Troy was a residential and trading city, a power and business center, which spread in the plains over more than 270,000 square meters.

Original written sources, which could finally be assigned with the help of the latest discoveries, designate this city as "Wilusa/Wilusia"—(W)Ilios, in others, is from "Taruwisa/ Tru(w)isa"—in the Trojan language. Scientists have identified Hisarlik definitively as Homer's Ilium. Achaea was immortalized, on one of the numerous pillars from the Fourteenth century B.C.;

Homer designated the Greeks with the old word Achaean. Numerous traces were also found of military conflict, for example, fire-damaged walls, skeletons, and an entire heap of unused catapult stones.

Now, scientists wonder, whence did Homer get his detailed knowledge of Troy? Indeed, researchers are certain that Homer—or, for all that, at least some "authority"—must have examined the city and its environs in person, since his description agrees precisely with findings at the location. But the Mycenaean Troy of which Homer sings in the *Iliad* had, by his time, been destroyed four hundred years earlier, and was newly built on the rubble. Therefore, how could this information from the late Bronze Age, have been recovered in Homer's time? No doubt, it was passed down orally in verse. Philologists have found evidence that the *Iliad* incorporates verses which had been recited by bards in Mycenaean times.

Thus, science itself now elevates the *Iliad* from poetry, to a historical source. That is a beautiful acknowledgement of the genius of Homer, and a late repayment to Heinrich Schliemann, whose unshakeable belief in Homer must be credited for all this knowledge.

The Iliad

In the old, orally transmitted epics, which formed the Epic Cycle, one finds an elegantly charming explanation for this disastrous war. We have these poems only in fragments, which were written down later and passed on. In the *Aithiopos*, the early history of the Trojan War is dealt with, and the cause of the war discussed. The Earth goddess Gaia complained to Zeus, that mankind had multiplied too greatly and burdened her breast too much. Zeus then decided to provoke a great war, in order to unbur-

^{*} See the Appendix, page 43.

den the all-nourishing Earth. Thus, the reduction of the population is invoked as the reason for the war, in which the entire population of Greece was involved.

Gaia descended from the original race of the old gods, the Titans, about whom Homer reports virtually nothing. He relates an earlier legend to us, in which the war leads back to arguments among the Olympian goddesses. The Trojan prince, Paris, had been asked to choose which among Athena, Hera, and Aphrodite was the

most beautiful. Each promised him a gift: Athena promised him wisdom, Hera power and fame, and Aphrodite promised him the love of the most beautiful woman in Greece. And which gift did Paris choose? He decided on Aphrodite. Later, he visited King Menelaus in Sparta, who was married to Helen, famous as the most beautiful woman of her time. Paris, without hesitation, stole Helen and took her with him to Troy, in the course of which he also made off with the royal treasure.

The actual reason for this great, destructive war lay deeper, however, and the dramatist Euripides informs us of this. In his tragedy, *Iphigenia in Aulis*, he relates the earlier history to us: All the Greek princes sued for Helen's hand, so that her father, Tyn-

darus, King of Sparta, feared that one or the other who was scorned would begin a war against the chosen. He had the suitors swear an oath, that they would take joint action against anyone who tried to take possession of Helen by force. Then, he let his daughter choose her future husband, and Helen chose Menelaus.

Menelaus was Agamemnon's brother. Agamemnon was King of Mycenea, the most powerful state of Greece. Menelaus became the King of Sparta through his marriage to Helen. All the Greek cities were allied through the oath that they had sworn to Tyndareos. No longer did each stand for itself alone, for now all were obliged to jointly avenge a wrong, which any one of them might do. Since Paris, a nobleman from Troy, had violated the laws of nations and of hospitality, which were sacred to the Greeks, the Greek people rose up to collectively atone for the breach of law. The army gathered at Aulis; they appointed Agamemnon as their supreme commander.

Homer selected a short span of 51 days, out of the entire ten-year war, for the action of the *Iliad*. However, through flashbacks and foreshadowing, we learn the complete outcome of the war, both its previous history, and the hints of the events to follow. He relates the old myths and legends of the generation of great fallen heroes, teaches the history to us—and he brings in a totally new pantheon, the Olympian gods, establishing a new religion.

The *Iliad* is a complex composition, with at least three levels of action: There is, apart from actions which describe the war and camp life, an inner level, in which Homer lets us take part in human suffering and greatness

of the soul; thirdly, there is the level of the world of the gods. These three parts are also encountered chronologically: Homer turns far back to "olden times," when the gods still lived on the Earth and helped to form the human community, and from there up to the dark age. But he also again and again reports scenes from the everyday life of his time; and he points far ahead into the future.

A New Image of Man

The *Iliad* is actually not an heroic epic—the hero and his deeds aren't the focus. Of course, there are many horrible war scenes, of the kind that make Homer's attitude towards war crystal clear. Homer recognized the brutality of war, and again and again

showed what it makes of man. He compares the massacred warriors constantly with wild beasts:

... like wolves, leaping, hurling into each other, man throttling man.

(IV, 470-71)*

As a lion charges cattle, calves and heifers browsing the deep glades and snaps their necks, (V, 161-62)

Achilles now

like inhuman fire raging on through mountain gorges splinter-dry, setting ablaze big stands of timber, the wind swirling the huge fireball left and right chaos of fire—Achilles storming on with brandished spear like a frenzied god of battle trampling all he killed and the earth ran black with blood. Thundering on, on like oxen broad in the brow some field hand yokes to crush while barley heaped on a well-laid threshing floor and the grain is husked out fast by the bellowing oxen's



Achilles. His state of mind, not his deeds, is the subject of the Iliad. Detail from amphora, 445 B.C.

^{*} English translation excerpts from *The Iliad*, trans. by Robert Fagels (New York: Penguin, 1990).

hoofs-

so as the great Achilles rampaged on, his sharp-hoofed stallions

trampled shields and corpses, axle under his chariot splashed

with blood, blood on the handrails sweeping round the car, sprays of blood shooting up from the stallions' hoofs and churning, whirling rims—and the son of Peleus charioteering on to seize his glory, bloody filth splattering both strong arms, Achilles' invincible arms— (XX, 490-503)

The warrior on the battlefield, "hollowly crashed down in death," "and night covered his eyes," "the soul escaped" to Hades. Now the battle begins over the body; first over the armor, because it is valuable, then around the dead body, which they must release from the enemy, to obtain "eternal freedom," to be able to bury it honorably as the custom commanded. The fight around the body of Achilles' friend Patroclus raged on an entire day of the war, and on both sides many warriors fell. Meanwhile, the loved ones at home, old fathers and mothers, longing for wives and children, trembled for the lives of the warriors, and hoped for a swift return—to no avail:

The son of Tydeus killed the two of them on the spot, he ripped the dear life out of both and left their father tears and wrenching grief. Now he'd never welcome his two sons home from war, alive in the flesh, and distant kin would carve apart their birthright. (V, 154-157)

And now his mother began to tear her hair . . . she flung her shining veil to the ground and raised a high, shattering scream, looking down at her son. Pitifully his loving father groaned and round the king his people cried with grief and wailing seized the city— (XXII, 405-409)

The day that orphans a youngster cuts him off from friends.

And he hangs his head low, humiliated in every way ... his cheeks stained with tears, and pressed by hunger the boy goes up to his father's old companions, tugging at one man's cloak, another's tunic, and some will pity him, true, and one will give him a little cup to drink, enough to wet his lips, but not quench his thirst. But then some bully with both his parents living beats him from the banquet, fists and abuses flying: 'You, get out—you've got no father feasting with us here!' And the boy, sobbing, trails home to his widowed mother ... (XXII, 490-502)

Even these few examples demonstrate a fundamental stylistic device: metaphor. Homer paints a multitude of images in immediate view of the listener from all areas of nature, of rural and home life—of crafts, which he describes with such great skill and truth. He paints all of these images to strengthen the legends, to anchor them deeper in the mind of the listeners. Through that, we get an exact image of everyday life at that time.

Heroism in Homer

What is new in Homer's heroic epic, is how he describes man to us—man with his hopes, needs, and afflictions. Right in the first lines of the *Iliad*, the poet defines the task which he assigned to himself:

Rage—Goddess, sing the rage of Peleus' son Achilles, murderous, doomed, that cost the Achaeans countless losses, hurling down to the House of Death so many sturdy souls, great fighters' souls, but made their bodies carrion feasts for the dogs and birds, and the will of Zeus was moving toward its end. Begin, Muse, when the two first broke and clashed, Agamemnon lord of men and brilliant Achilles. (I, 1-8)

The theme of the epic is not the heroic *deeds* of Achilles, the undisputed great hero, who fought on the side of the Greeks, but his *state of mind*, his wrath, and the result that this anger precipitated for the entire army: a bitter feud between Agamemnon, the leader of the army, and Achilles.

The controversy broke out around a maiden, Briseis, whom Achilles had taken as booty on one of the numerous raids the Greeks undertook during the ten-year siege, and by which they laid waste to the entire environs of Troy. Agamemnon stole her from him. However, the cause lies deeper here also. It ignites a conflict between the traditional, existing power, and the strutting, deedthirsty youth. The rivalry exploded between Agamemnon, the most powerful prince of Greece, and Achilles, the capable hero and greatest warrior in the army. Achilles wants to destroy Agamemnon, an exceedingly questionable undertaking in the midst of a destructive war. Agamemnon retaliates accordingly: he humiliates Achilles before the entire council.

Achilles draws back grumbling to his tent and, despite some attempts at reconciliation, he stays far from the fighting from then on. The Trojans exploit this weakness, and win the upper hand on the battlefield. By this time, Hector, the most brilliant hero of the Trojans, is on the verge of setting the Greek ships on fire, but Achilles is still not moved. Prodded by his friend Patroclus, he gives in only to the point that he allows Patroclus to go into battle, lending him his armor. Now, something awful occurs: Hector kills Patroclus and steals his armor. At last, Achilles relents and returns to the war. His mother, the sea nymph Thetis, has Hephaestos forge him new weapons, and Achilles does not rest until he avenges the murder of his friend by Hector.

It was the overwhelming task of the epic poet to decide which of hero's battle deeds to relate, thus keeping them in memory as a binding ideal for the following generation. "At all times achieve the best and be prominent before others"—with these words Achilles' father Peleus had sent his son off to Troy. Homer fulfills this requirement in an excellent way: he removes Achilles, who outshines all the others by far, from the events for a while, so that he can allow the other heroes to achieve superior feats, later surpassing them with the heroism of Achilles.

In the opening of the epic, Homer also states that Achilles' anger "caused unspeakable misery and sent many brave souls of hero's sons to Hades"—that it was the cause of the death of many Greek soldiers. Achilles is no flawlessly shining hero; through his stubbornness and the intractableness of his anger, he brought the entire army to the edge of total destruction. And he did that willfully. He wanted the Greeks to suffer one defeat after the other, in order to force Agamemnon to his knees. Now, he learns in his own gut, when he loses his best friend in Patroclus, what his earlier actions did to the army.

At the same time, Agamemnon doesn't look too good either. He is lacking in self-control, arrogant, and unjust, and carries the moral responsibility for the misfortune which overtook the army. And Menelaus, who in any case was associated with attributes like "brilliant hero" and "godly warrior," reveals himself as a soft combatant, and in the hour of danger, as a coward. Homer therefore faces the Achaean army, which he wants to glorify, not uncritically; instead, he passes judgment, bluntly and impartially, on the strengths and weaknesses, even on his own side.

Achilles' counterpart on the battlefield is Hector. He is also described as a powerful, brilliant hero, but his heroism differs greatly from that of Achilles. He is the hero of the "nonetheless." He is against the war, has undertaken many attempts to settle it through negotiations, and has had to witness them all fail—and yet, he fights on the front line. He is aware that he will pay for this action on behalf of his people with his life, and that Troy will be taken. But he does what he must do. His heroism is more mature, more human. This is especially beautifully expressed during his last encounter with his wife and child in Book VI.

There, when Hector returns to the city in order to bring a sacrifice to the patron goddess Athena, the situation looks very bad for the Trojans. On the street, he meets his wife Andromache and the nanny who carries his little son, Astyanax. As he fondly beholds his son, Andromache asks him not to go into battle, so that she not be made a widow and the son an orphan. "All this grieves me also, most beloved," he answers her; however, he does not wish to shirk the responsibility for his homeland, and the faith of his comrades.

"For in my heart and soul I also know this well: the day will come when sacred Troy must die, Priam must die and all his people with him, Priam who hurls the strong ash spear . . .

Even so,

it is less the pain of the Trojans still to come that weighs me down, not even of Hecuba herself or King Priam, or the thought that my own brothers in all their numbrs, all their gallant courage, may tumble in the dust, crushed by enemies— That is nothing, nothing beside your agony when some brazen Argive hales you off in tears, wrenching away your day of light and freedom! Then far off in the land of Argos you must live, laboring at a loom, at another woman's beck and call, fetching water at some spring. Messeis or Hyperia, resisting it all the way the rough yoke of necessity at your neck. And a man may say, who sees you streaming tears,

And a man may say, who sees you streaming tears, 'There is the wife of Hector, the bravest fighter they could field, those stallion-breaking Trojans, long ago when the men fought for Troy.' So he will say and the fresh grief will swell your heart once more, widowed, robbed of the one man strong enough to fight off your day of slavery.

No, no,

let the earth come piling over my dead body before I hear your cries, I hear you dragged away!" (VI, 448-466)

He wants to take his son in his arms, but his son is frightened by Hector's mighty helmet, and clings fast to the nanny, crying loudly. Hector puts down his helmet; the little boy recognizes his father joyfully, and is lifted on his arm. The sight of his young son provokes Hector's will to live, above the sense of dark foreboding. Hector lifts Astyanax up to the heavens and prays, that the gods will be willing to cradle the child. Now he is entirely himself again, now he has an inner freedom and power to console his beloved wife, whom he reminds of her household duties, and again marches out to the "slaughtering battlefield." Andromache turns homeward, rightly suspecting that she will never see her beloved again.

She quickly reached the sturdy house of Hector, man-killing Hector, and found her women gathered there inside and stirred them all to a high pitch of mourning. So in his house they raised the dirges for the dead, for Hector still alive ...

(VI, 498-501)

Here we already experience the future fate of both spouses: Hector will die on the battlefield, and Andromache will be taken to Greece in slavery, as part of the booty of Achilles' son Neoptolemus. And the little son? Astyanax will be slain, as all male survivors of Troy are to be.

Hector turns back to the battle. Later, after Achilles' return to battle has turned the tide, the Achaeans storm the Trojan wall, and the Trojan men seek protection within the city. Only Hector stays outside the gates; at this moment, he briefly considers making an offer of surrender to the enemy. And, as at the last meeting with Andromache, he remembers the duty that he has toward his people, and takes his position. His elderly parents are terrified and implore him to escape into the city.

Back, come back! Inside the walls, my boy! Rescue the men of Troy and the Trojan women don't hand the great glory to Peleus' son, bereft of your own sweet life yourself.

Pity me too!-

still in my senses, true, but a harrowed, broken man marked out by doom—past the threshold of old age ... and Father Zeus will waste me with a hideous fate, and after I've lived to look on so much horror! My sons laid low, my daughters

dragged away and the treasure-chambers looted, helpless babies hurled to the earth in the red barbarity of war...

(XXII, 56-64)

Priam makes an appeal to his reason; Hecuba tries with impassioned words to induce him to return. Of the nineteen sons who were born to them, most died on the battlefield, and now the same fate threatens the most beloved of them, on whom the survival of Troy depends. But Hector is calm in his determination. As in the scene with Andromache, the poet shows us anew that heroism is not automatic, but means inner struggle and conquest, from which the resolve to act thusly, and not otherwise, develops.

Helpless and powerless, Priam and Hecuba must witness how Achilles kills Hector, then pierces his heels in order to bind him to a chariot, and in a raging gallop, drags him around the city. For twelve days straight he drags Hector's body, in each case three times around the grave mound of his Patroclus, until Priam finally takes courage, loads up his wagon with gold and valuable gifts and, at night, secretly, accompanied only by a herald, enters the enemy camp, in order to implore Achilles for the surrender of the body of his beloved son. That is heroism also—to risk one's life for a merciful deed.

The Transformation of Achilles

Achilles undergoes a great transformation in the epic. For the longest time, we see him angry and resentful. As he receives the report of the death of Patroclus, it becomes clear what his friend meant to him. "The gloominess of dark clouds" befalls him; he tears his hair out and covers it with dust, falls down and cries so loudly in anguish, that his mother Thetis hears him in the deep of the sea and rushes to help her son. In the greatness of his suffering, the depth of the friendship is revealed.

His heart thirsts for vengeance, and in spite of the fact that Thetis reveals to him that it is his fate to die soon after Hector, he rushes forth to accomplish his revenge. Patroclus

> is dead, what does life mean to him? Earlier, Thetis had brought him the new weapons, which the blacksmith god Hephaestos had made especially for him. He rages in "furious madness," like a madman he slaughters in bloodlust, showing no trace of humanity. Even nature revolts against this "sea of blood"-the Scamander River, on account of the sacrilege, breaks its banks and entirely changes its course. As excessive as Achilles was in his anger, he is just as excessive in his revenge. When he takes twelve of the "best Trojan youth" captive and sacrifices them on Patroclus's grave, he reverts back to a prehistoric, barbaric time.

> When Priam dares the seemingly insane undertaking and approaches the raging Achilles, embraces his knees and kisses the hand that murdered and dis-



graced his son, an astonishing transformation occurs in Achilles. The old man asks him to hand over the corpse, and reminds Achilles of his own old father. There the rigid spirit of Achilles softens, and he breaks out in tears and wailing. He pities the unfortunate old man, lifts him up, and entertains him at his table. And as they both sit across from each other, each is astounded by the other's beauty, greatness, and merit. Achilles washes, anoints, and clothes the corpse, and lifts it himself onto the bier. Then they agree to an eleven-day truce, so that Hector can be buried honorably.

With the solemn burial of Hector, the *Iliad* ends. The task, which the poet had defined, to describe the anger of Achilles and its destructive aftermath for the Greeks, is accomplished with the transformation of Achilles. Homer's public knew the end of the history anyway; it has only become unfamiliar to us today. In Book VIII of the *Odyssey*, Homer relates the trick of the wooden horse, in which the best Greek soldiers hid, and which the Trojans pulled inside their walls as a supposed consecrated gift for the gods. During the night, the Greeks climbed out of the horse and captured the city. The Roman poet Virgil relates the capture and total destruction of Troy by the Greeks in detail, in Book II of his *Aeneid*.

The Birth Hour of Humanism

The transformation of Achilles at the end of the Iliad ushers in an entirely new ethic. This transformation was caused by the experience of his own grief and emotion. Grief-stricken Priam reminded Achilles of his own father. Achilles knows his own death, in front of Troy, will torture his own father with equally deep pain. Achilles is moved through the misery of Priam, and this emotion allows him to act humanly. "The most compassionate man is the best man," said the poet Gotthold Lessing, because compassion allows us to be magnanimous. A king and a prince who are at war, jointly mourn the loss of those who stood nearest to their hearts and who, in each case, were slain by the hand of the other side. If one compares this surprising picture with the typical heroic cycle, in which the fame of the warriors was measured by the number of people they slew, and in which kings may not show any weakness, then we begin to get an idea of what a revolution this ending of the Iliad must have been.

War and hatred are overcome through mutual esteem, respect, and sympathy, reads Homer's lesson. This is the birth hour of European humanism. Homer closely adheres to the traditional myths, he doesn't alter the legend of the destruction of Troy, and despite that, he creates something entirely new. The effect which the *Iliad* exerted on the contemporaries of Homer, must have been powerful. It was a totally new tone, an entirely unknown image of man. Earlier, through the entire epic, he reminds us again and again of the horrors of war, and points out the plight that awaited the widowed wives, orphaned children, and old mothers and fathers left behind, inspiring the emotion and sympathy of the listener. And then this powerful ending, where even in kings, compassion steps in, in the place of hate, and mercy replaces vengeance.

Some may object, that the entire epic totals many thousands of lines, while the transformation of Achilles was sung in a mere few dozen verses. That is true. Nevertheless, one must consider, that Homer stands in the beginning of the development of the individual. Man is not yet solely the cause of his actions, he still imputes numerous responsibilities to the gods. His real essence must be discovered first. Homer portrays his heroes powerfully and frankly, but they are not individuals in our sense, their actions are not the consequence of a self-conscious decision process. Judgments and deeds must still be explained as the effect of an external god. The will, that "majestic right of our person," as Schiller himself said, fails totally, and with it every power, which maintains our person against inner and outer influences.

Only in the above-cited examples of the personal struggle which precedes the actions of Hector, Achilles, and Priam, is it otherwise. Here, no deity turns to the side and gives the correct advice, or inspires the soul to bravery in the decisive moment; here, the soul itself soars aloft, above trembling and faltering. There are those sublime moments, in which the hero must rise above himself, or be destroyed.

Homer's new image of man inspired many to make the trip themselves, and to search for the essence of mankind. Within less than 200 years, the "I" was discovered as a self-reflexive, individual unity in the early Greek lyrics, and a hundred years after that, the Greek tragedians uncovered anew the finest emotions of the soul. Homer's new ethic is celebrated in the tragedies of Aeschylus, Sophocles, and Euripides. Parallel to the search for the essence of man, passionate investigations for the essence of the cosmos are associated, seeking the principles of the world surrounding man, and Greek scholars open up one area of knowledge after another. Now man is developed in his entire spiritual and intellectual unity-he becomes an individual. Homer is the beginning and cause of this development, and for this we bow our heads in recognition of the true greatness of his accomplishment.

—translated from the German by Pat Noble

Appendix: Scholars Debate Homer's Troy Hypothesis and the Science of History

The main auditorium of the University of Tübingen, Germany was packed to the rafters for two days on February 15-16 of this year, with dozens fighting for standing room. Newspaper and journal articles had drawn the attention of all scholarly Europe to a highly unusual, extended debate. Although Germany was holding national elections, the opposed speakers were not politicians; they were leading archeologists. The magnet of controversy, which attracted more than 900 listeners, was the ancient city of Troy, and Homer, the deathless bard who sang of the Trojan War, and thus sparked the birth of Classical Greece out of the dark age which had followed that war.

One would never have expected such a turnout to hear a scholarly debate over an issue of scientific principle. But, where Troy is concerned, expect the unexpected. For the 2,800 years since Homer composed his great epics—or more precisely, for 3,200 years, since the time the Trojan War Homer sang of in his *Iliad* was probably fought mankind has been concerned with the fate of Troy.

On one side of the Tübingen debate, were the leaders of an archeological team directed by Tübingen Prof. Manfred Korfmann, who have been making new discoveries at the site of Troy (near today's Hisarlik, Turkey) for more than a decade. In 2001 they coordinated an exhibition, "Troy: Dream and Reality," which has been wildly popular, drawing hundreds of thousands to museums in several German cities for six months. They gradually unearthed a grander, richer, and militarily tougher ancient city than had been found there before, one that comports with Homer's Troy of the many gates and broad streets; moreover, not a small Greek town, but a great maritime city allied with the Hittite Empire. Where the famous Heinrich Schliemann, in the Nineteenth century, showed that Homer truly pinpointed the *location* of Troy, and of some of the long-vanished cities whose ships had sailed to attack it, Korfmann's team has added evidence which tends to show that the bard also truly gave us the city's character and qualities.

On the other side, were European archeologists who, for the most part, have not excavated at Troy, but who have taken up public opposition to the Tübingen group's findings, and to its exhibition. They have been determinedly fighting to cut the Troy of Korfmann and his team 'down to size," and above all, to keep Homer out of it! As in the many scholarly battles over Troy for hun-

Right: Troy in the Third Millennium B.C. This computer reconstruction of Troy II, the layer excavated by Heinrich Schliemann, was prepared by the University of Tübingen team that has been excavating the site since 1988. The drawing shows the pattern of a trading metropolis, with an upper city, or citadel, and a lower city which, at the later time of Homer's Iliad, had some 7,000 inhabitants, its own surrounding wall, and a moat.





Left: The famous palace ramp of Troy II as it appears today. At the upper end, Schliemann found what he called "Priam's Treasure," referring to the Trojan War era. Ramp and treasure were subsequently dated to the earlier Troy II period.



The exhibition, "Troy: Dream and Reality," which presents the discoveries of the archeological team headed by Tübingen University's Dr. Manfred Korfmann, has drawn over a million visitors to German museums this year.

dreds of years, the immortal works of the great poet are always at the center of the controversy.

Homer's Epics Speak to Us Still

Scholars have duelled incessantly over the Trojan Wars for more than two centuries. But their differences often featured episodes dreamed up by latter-day mediocrities, who thought thereby to acquire for themselves something of Homer's glory, by lying outright about the poet and his works. Homer sang of the first Trojan War. The "second" broke out in 1795 when, out of the blue, one Friedrich August Wolf suddenly claimed that the *Iliad* and *Odyssey* were just cut-and-paste jobs of a number of different songs—poetic inventions, not histories—by not one, but several different poets. Thus was the historical Troy disposed of; as for Homer, *dixit* Wolf, he had simply never existed. Lo and behold, during the Nineteenth century, Wolf's brainstorm came to dominate scholarly opinion. When, in 1871, Schliemann began to dig on the hill at Hisarlik, to which he had come using the *Iliad* literally as his guide, the "third" Trojan War promptly broke out: A sizable chunk of the scientific community could not tolerate the idea of someone digging up out of the mists of history, a Troy they had labelled deader than the dodo.

Since 1988, under the leadership of Professor Korfmann, fresh excavations have been under way. His team of 75 scientists from around the world, with widely varying expertise, has made discoveries that have come to revolutionize our notion of Troy. Through his work, it has become manifest that Troy could not have been a Greek city, as dozens of generations have assumed, but rather belonged to the broader cultural area of Anatolia. From that vantage point, earlier finds have been given their proper significance, and many disputed points cleared up.

Among the most significant recent finds have been: a defensive trench completely around the city; an extensive tunnel system which collected and distributed potable water; and a large "lower city," surrounding the hill where Schliemann excavated. All these discoveries have placed Homer squarely in the center of the debate—yet again!

There was, among the many examples, the discovery in 1997 and 1998 of reservoirs and a subterranean supply well outside the lower city's wall to the west. Homer described this in Book XXII of the *Iliad*, when Hector, being pursued by Achilles around the city wall, reached

- . . . where those two mother springs
- Of deep Scamander poured abroad their silver murmurings—

One warm and casts out fumes as fire, the other, cold as snow Or hail dissolved. And when the Sun made ardent summer glow,

- There water's concrete crystal shined, near which were cisternes made
- All paved and clear, where Troyan wives and their fair daughters had

Laundry for their fine linen weeds, in times of cleanly Peace Before the Grecians brought their siege.

(XXII, 129-136, translated by George Chapman)

Evidence from the aforesaid finds has been collected in a touring exhibition that has, over the past year, been at Stuttgart, Braunschweig, and now Bonn, Germany, drawing almost 1 million visitors. The press has reflected that keen interest—hundreds of articles have appeared, and dozens of new books on Troy, while the *Iliad* itself has gained pride of place in Germany's bookshops. Works of a scientific bent on Troy and Homer have been selling well, and conferences on this topic have pulled in a flood of participants.

As little as ten years ago, interest in this ancient world was virtually extinct outside a narrow circle of experts. Things have certainly changed! Korfmann's excavations, and his exhibition, have unleashed in Germany, what one may fairly call a renaissance of interest in the ancient world in this period when the great war broke out across the Aegean Sea. And they have triggered, predictably, a conflict along well-known factional lines.

The 'Fourth' Trojan War

Since the summer of 2001, the "fourth" Trojan War has been raging, provoked by a Tübingen professor of ancient history, Frank Kolb. In an article in the daily *Berliner Morgenpost*, Professor Kolb declared war on his colleague Manfred Korfmann. Just as one might think a daily newspaper something of an inappropriate forum for such a debate, so was Professor Kolb's language something less than choice. He alleged that Dr. Korfmann has been leading the public down the garden path, that he had falsified his excavations and over-interpreted his findings; in a word, that Korfmann was twisting historical truth, in order to gain fame as a Great Popularizer.

With throngs flocking to the "Dream and Reality" exhibition, Kolb's remarks against it were trumpeted far and wide by the mass media; then, interviews and scholarly declarations began to rain down from all sides. The February symposium, which became a packed and widely watched debate under the title, "The Significance of Troy in the Later Bronze Age," was held, ostensibly to clear the air. In attendance were the two protagonists, along with 11 scientists from the relevant disciplines, from all over the world: archeologists, experts on ancient history and on the ancient Orient, philologists, Hittite scholars, and experts on Homer.

The battle got going over a wooden model of Troy, shown at the exhibition, which included the citadel and a well-built, extensive "lower city." Professor Kolb decried it as "public trickery," on the grounds that each little house shown in the wooden model did not correspond to a particular find at the Hisarlik excavation. Kolb had previously protested—and he brought this up several times during the symposium—that in Homer's days (the Eighth century B.C.) Troy had been "but a smallish settlement with scrubby little dwellings." As for the trench excavated by Korfmann's team, which they believe to be a defensive trench against the most dangerous form of weaponry of that age—war chariots—Professor Kolb begged to differ. In his view, the trench must have been for drainage purposes.

In the *Iliad*, Homer precisely described such a trench as Troy's defensive barrier against war chariots:

BLACK EA Troia llios Orchomenus Ceph Chios · Carystus Abasa Ephesus Zacynthus Andros Argos Millawanda Tiryn Miletus Syros D Spart Am Navos Cythera HEDITERRANE[°]AN Rhode Carpathos Mallia Phaistos . SE A

GREECE AND ANATOLIA IN THE MYCENAEAN PERIOD (13th century B.C.), the approximate era of the Trojan War. The maritime city of Troy and its surrounding area (Hittite "Wilusa," Homer's "Ilios") commanded the strategic sea-trade passage from the Aegean Sea into the Black Sea to the north, through the Hellespont (Dardanelles) and Propontis (Marmara Sea).

Heinrich Schliemann's 19thcentury excavation of Troy at this site, proved that Homer's Iliad established the location of Troy precisely, as well as the cities from which it was attacked-shocking scholars, who had dismissed Homer's epic as "just poetry." The post-1988 excavations have again shocked the scholars, by proving that Homer also precisely described the city's large size, splendor, and fortifications. Some of the Mycenaean Greek cities which sailed against Troy had long disappeared when Homer's epic named and located them 500-600 years later.



Above: Cross-section of the different strata of settlement on the mound of Troy, where the citadel was first discovered by Schliemann. The lowest (earliest) level, Troy I, from perhaps 3000 B.C., sits on the bedrock ("Fels"). Schliemann excavated the first important cultural period, Troy II. Troy III-V is the so-called "maritime" period, 2600-2400 B.C. Troy VI-VII, the high culture about which Homer sang, with its huge walls and much greater extension, ended about 1200 B.C. Above these strata are the remains of Hellenistic and Roman settlements and temples. **Right:** Today's excavation site, labelled for the strata of Troy II, III, and IV.

... which being so deep, they could not get their horse To venture on, but trample, snore and, on the very brink,

To neigh with spirit, yet still stand off. Nor would a human think

The passage safe ...

- The dike being everywhere so deep and (where 'twas least deep) set
- With stakes exceeding thick, sharp, strong, that horse could never pass,

Much less their chariots after them.

(XII, 62-68, Chapman translation)

The trench unearthed by Korfmann's team around the "lower city" of Troy is a major work: roughly 10 feet wide, 5 feet deep, and the length of a quarter-mile running track, dug into the rock. Constructing such a trench would have taken great labor. The question naturally comes to mind, whether Troy's inhabitants would willingly have put in so much time and work just for an irrigation canal, when one could have easily been dug into the loam, very close by. War chariots, moreover, played a major role at Troy. In the treaty between Hittite overlord Muwattalli II (c. 1290-1272 B.C.) and "Alaksandu of Wilusa," Troy undertook to place troops and chariots at the Hittites' disposal in the event of war. A war chariot was a highly complex piece of equipment, which could not have been hammered up by some village blacksmith,



but rather required both properly trained craftsmen, and specially bred horses, whose training took three years. All of this represented a major investment, and required upkeep and infrastructure.

The Hittite Empire would not likely have placed such demands, nor signed such a treaty, with a "scrubby little town." But was Wilusa, with which the Hittites had that treaty, actually Troy? That is the second sticking point.

The Language of The Iliad

Frank Starke, a Hittite specialist from Tübingen, said during the symposium that, "Troy's geographical position has been ascertained with certainty." His own work has shown that the place-name "Wilusa," which crops up frequently in Hittite documents, is the same city known to the Greeks as Troy. Homer often calls it "Ilios"—very close to "Wilusa," since the Greeks of Homer's time had ceased pronouncing "w."

Starke was straightaway contradicted by Mrs. Heinhold-Krahmer, a Salzburg Hittite expert, who objected to the idea that "comparison might be sustained, solely on the basis of coincidental assonances." She contended that one would first have to find written evidence with that name at the very site, if one were to be absolutely sure that the excavated hill was indeed Troy. Heinhold-Krahmer essentially demanded that Korfmann dig up a 3,000year-old street sign, before calling Troy, Troy.

And now to disagreement among the philologists, the scholars of language and meaning. This would seem, at first, astonishing, since research on Homer's epic poems has been greatly stimulated by Korfmann's excavations.

Troy was utterly destroyed some time around the year 1200 B.C., the point at which High Mycenaean culture (1600-1200 B.C.) collapsed, and Greece sank into a 400-year dark age. Homer sang of the disaster in his *Iliad*, composed about 500 years after that dark age. Joachim Latacz from Basel, Switzerland, and Wolfdietrich Niemeier from Athens, pointed to indications in the *Iliad* that the entire original Troy story (not Homer's epic) stems from the Mycenaean period, and was handed down accurately for centuries by bards, to Homer in the Eighth century. It is particularly remarkable that the *Iliad* contains a great many words and poetic epigrams which were no longer used in Homer's day, and that his descriptions of armor, weaponry, battle formations, and even architecture, were Mycenaean.

At the debate, Wolfgang Kullmann of Freiburg University saw it otherwise. He argued that, the "Troy story was [first] told after the dark age was past"; in other words, in Homer's lifetime. Although Dr. Latacz showed that the "catalogue of the ships" given by Homer at the end of Book II of the *Iliad,,* follows a list dating from the Mycenaean era, Kullmann insisted that the original was "a list of participants in the upcoming Olympic Games."

A third clash involved the expression "trading city." To Professor Korfmann, Troy played an important role in



Bronze Age clay signet seal, found at Troy in 1995. Contrary to the claim that Troy in the Mycenaean period was "writing-free," the seal is covered with both Hittite and Luwian (hieroglyphic) inscriptions. trade. A member of his team observed, with some exasperation, "Had the Trojans ever imagined how acrimonious the dispute over their city was to become, they would doubtless have taken the precaution of depositing little signposts all 'round," and taken care to stash away somewhere a ship's cargo with freight from every known spot on the globe.

Although they didn't bury such mercantile time-capsules for us, the Trojans enjoyed an outstanding strategic position, with Troy lying precisely between the European and Asian continents, and at the head of the passage from the Mediterranean to the Black Sea. But Dieter Hertel of Munich University, leading an attack on Troy's maritime status, called this position "irrelevant." Despite the fact that trade has been attested just about everywhere else in the world at that time, and although Kolb himself readily acknowledged that trade was intense throughout the Levant, Kolb and his colleagues arrayed against Korfmann, insist that in the northern Aegean and in the Black Sea, there was no trade, nothing but "exchange of royal gifts."

The same sort of reasoning was applied to writing systems. According to Bernhard Hänsel of Berlin, the entire northern Aegean was a "writing-free zone" in Mycenaean times. Although all of Troy's neighbors had been using writing systems for centuries—the Hittites, the Egyptians, the Mycenaean Greeks themselves—Hänsel claimed the Trojans were wallflowers in this regard. And, what is one to say about the seal found at Troy, covered with Hittite and Luwian inscriptions? [SEE illustration] Kolb argued that one "cannot take seriously" Korfmann's hypothesis that this shows that writing was in use, supposing instead that the seal was "brought there by some trader."

A trader, visiting a city that didn't trade? It seemed that, in their eagerness to dampen the public's enthusiasm for the Korfmann team's new picture of Troy, Kolb and his colleagues caught themselves up in some contradictions. From the outset of the debate, Professor Kolb accused Professor Korfmann of entertaining "other than purely scientific motives." Motives outside science may be at work on the accuser's side, though. What scientific motive could have impelled Kolb's associates to intervene with the German Society for the Advancement of Research, which has been co-financing the excavations at Troy, to cut off Korfmann's funding?

'Hypothesis Non Fingo'?

For Hans-Peter Urpmann, the biologist of the Tübingen University excavating team, critical issues are at stake. For decades, archeology, as a scientific discipline, had taken a back seat to so-called "pure historical studies." But now, says Urpmann, it is in the spotlight, while the "pure" historical sciences are "backed up against the wall." "Not a single drop more can be squeezed" from the texts over which the "pure" historians have been poring for decades. Those historians want to keep the upper hand over history, he maintains, and have been defending their position by gripping with "tooth and claw," fixed categories and concepts.

Oddly enough, the hard core of the accusation which Professor Kolb and his fellow attackers have been levelling at the Korfmann group is, that the latter have dared to formulate hypotheses about the meaning of what they have found. Kolb and others insist that "one is not entitled to base one's arguments on anything other than finds that one has actually got in hand, and certainly not on hypotheses." Quite the opposite view was taken by Korfmann, who said, "a hypothesis may fairly be held to be valid, until such time as a fresh one come to replace it."

That is the crux of the matter; that is why battles are being fought to this day over Troy. Was Troy a trading metropolis, as Korfmann would have it, or, in Kolb's words, "an insignificant settlement of scrubby little houses"? Are the trenches defensive ones, as Korfmann would have it, or Kolb's irrigation canals? Was the lower city "rather densely built-up with edifices of stone" (Peter Jablonka, Tübingen), or "a small, essentially agrarian outlying settlement" (Kolb)? Did it have "between 5,000 and 7,000 inhabitants" (Korfmann), or "something under 1,000" (Kolb)? All of these points show that we are faced here with "two quite different worlds," as Korfmann said.

Does *science* involve nothing but collating data and facts, and then explaining them, or does it begin precisely where what one already knows, leaves off? In the German language, the word for science, "*Wissenschaft*," means "creating new knowledge," not merely interpreting the old in ever-more exhaustive detail.

In this controversy, as in others, those like Professor Kolb, who would reject the notion of hypotheses as something unscientific, as mere "speculation," often turn out to cling like barnacles to their very own hypotheses. To assert that Homer never existed, or to insist as Freiburg's Prof. Wolfgang Kullman did, that the *Iliad* is a mere "poetic construct" and not the telling of history, is, in itself, obviously, a form of hypothesis-making. How these historians dealt with their adversaries at the debate, exhibiting self-righteousness and sometimes arrogance, as if from an armed bunker, was visible to the many interested laymen in the audience, and did nothing to improve the standing of their particular branch of science in the public eye.

Who Was Homer?

Similarly, the question whether the *Iliad* and the *Odyssey* possess an artistic unity that demonstrates they were composed by only one man of genius, is not just a

falling-out between scholars. The dispute pertains to different notions of the nature of man's creativity. Those who protest—as did Friedrich August Wolf in the Eighteenth century—that Homer could never have composed such epics, take that stand because they cannot accept the notion that man might be capable of such an outburst of pure genius. Thus, the outcome of the controversy over Korfmann's excavations, and their interpretation, will prove to be critical to the future of science.

At the Tübingen debate, Professor Kolb insisted over and again that, the "excavations at Troy must be seen as something separate and distinct from the *Iliad*. . . . Identifying Troy with Wilusa is mere hypothesis. . . . One must avoid imagining that the settlement had something to do with the *Iliad*." But, why should one avoid imagining that? Because, perhaps, one actually finds so much evidence to suggest it? Might this be why Professor Kolb has turned down Professor Korfmann's several invitations to visit the excavation site, and see things with his own eyes?

Kolb accused Korfmann of wanting, from the very outset, to excavate the "glorious Troy," exactly as Heinrich Schliemann wanted to do in the Nineteenth century, when he followed Homer's directions and found this buried city for the first time. Professor Kolb does not want to find any "glorious Troy."

The Troy controversy of 2001 has been making such waves in the international scientific community, that a delegation of British scientists, led by the grand old man of Hittite studies, John David Hawkins, travelled to Tübingen for the symposium. Korfmann's achievements, they said, were outstanding; he and his team had "set an example" for other archeologists. They expressed their hope that "the conflict" not have an adverse effect on Korfmann's work.

And when, during the final debate, Korfmann affirmed that he would definitely continue excavating at Troy, his announcement was greeted with resounding applause from the entire hall.

—Rosa Tennenbaum

This article originally appeared in the March 29, 2002 issue of Executive Intelligence Review (EIR) (Vol. 29, No. 12), accompanied by an interview with Professor Manfred Korfmann. A detailed report on the German exhibition presenting the results of the Korfmann group's recent archeological excavations, "Troy: Dream and Reality," including on-site observations of the Troy/Hisarlik site, was prepared for the Feb. 8, 2002 issue of EIR by Andrea Andromidas (Vol. 29, No. 5).

The History of the Decline and Fall Of the Greek Republics (1808) Wilhelm von Humboldt

THE FOLLOWING ESSAY was written as the first chapter of a book which Wilhelm von Humboldt planned, but did not complete. Nothing of such beauty and profundity on the subject of antiquity, and the Greeks in particular, exists in the English language.

Humboldt's insights into the ideality of the Greek character, in contrast to the modern era and that of the Romans, is useful to contemplate. In his brief description of the Romans, we can see echoes of our own degeneration, alienation from nature, and alienation from our own humanity. Hence the differentiation between the Classsical (Greek) and the Romantic (Roman, modern).

Humboldt's profound friendship and dialogue with Friedrich Schiller is reflected in various ways throughout the piece: in his presentation of the Greek ideal, and especially in his discussion of the concepts of "impulse" and "longing." His elaboration of "impulse," is akin to Johannes Kepler's use of the word "intention," to describe the behavior of the planetary orbits—there is an intention, a passion for the planets to act in the way they do, in accordance with the mind of the Creator, just as with the impulse of the Greeks. It is not arbitrary.

The translator wishes to acknowlege the inspiration and technical assistance of Andrea Andromidas, Rosa Tennenbaum, and Christine Schier of the Schiller Institute in Germany, in completing this difficult work.

INTRODUCTION

Concerning the Greek Character in General, and the Ideal Persuasion of the Same in Particular

1. The current age finds itself in a situation with respect to antiquity, which was totally alien to antiquity. We have a nation before us, in the Greeks, under whose fortunate hands everything, judging by our innermost inclination, which preserves the highest and richest aspects of human existence, had already ripened to ultimate perfection. We look upon them as a branch of humanity formed from a nobler and purer material; looking back upon the centuries of their Golden Age as on an epoch in which nature, freshly emerging from the workshop of creation, had maintained a still purer relationship with the Greeks; since they, scarcely looking backward or forward, planted everything anew, founded everything anew, and, pursuing in peaceful simplicity their unrestrained endeavors, exhaling the natural longing of their breasts, established standards of eternal beauty and greatness.

Therefore, for us the study of Greek history is not as it is with the history of other peoples. The Greeks step forth entirely from the selfsame place; although their destinies belong equally to the general chain of events, therein lies but their least importance in regard to us; and we would absolutely misjudge our relationship to them, were we to dare apply the yardstick of the rest of world history to them. Knowledge of the Greeks is not simply pleasing, useful, and necessary to us—it is only in them that we find the ideal which we ourselves would like to be and to bring forth. Although every other period of history enriches us with human wisdom and human experience, we acquire from the contemplation of the Greeks something more than the earthly, something even almost divine.

For, by what other name should one call a sublimity, whose unattainability, instead of discouraging, remoralizes and incites one to emulation? If we compare our restricted, narrow-hearted situation, oppressed by a thousand shackles of capriciousness and habit, fragmented by countless petty occupations, which never delve deeply into life, with the Greeks' free, pure activity, whose sole goal was the highest in humanity; if we compare our labored works, maturing slowly by repeated efforts, with theirs, which flow forth from the mind and spirit as if from free abundance; if we compare our gloomy brooding in monastic solitude, or mindless intrigues in casual society, with the serene cheerfulness of their community of citizens, who were bound by the holiest bonds; then, one might think the memory of them must make us sad and depressed, just as the prisoner becomes when recalling the unrestrained enjoyment of life; the invalid when remembering his robust health; the inhabitants of the North, by thinking of the image of an Italian spring day.

But, on the contrary, it is only the transposition to that time of antiquity which, uplifting our heart and widening our spirit, restores us to such a degree to our initial, not so much lost, as never possessed, human freedom, that we return to our ever-so-contrary situation with fresh courage and renewed strength, drawing true inspiration at that inexhaustible spring alone. Even a deep awareness of the gap which fate has eternally placed between us and them, urges us to use the newly acquired power born of contemplating them, in order to uplift us to our allotted height. We imitate their models with a consciousness of their unattainability; we fill our imagination with the images of their free, richly endowed life, with the feeling that it is denied us, just as the easy existence of the inhabitants of their Olympus was denied them.

For this can surely be considered a suitable metaphor of our relationship to them. Their gods wore human forms like them, and were created from human material; the same desires, passions, and pains, moved their breasts; neither were the troubles and hardship of life alien to them; hate and persecution stirred violently in the halls of the gods' abode; Mars lay dying among slain warriors; Hermes wandered with trouble over the lonely wilderness of the sea; Latona felt all the afflictions of an expectant mother; Ceres all the anguish of the deserted mother. We find likewise in Hellas all the roughness of life; not only the hardships which befall individuals and nations, but also the most violent passions and excesses, even the brutality of man's unbridled nature. But just as the unique splendor of cloudless Olympus melted and dissolved all those dark colors, so there is something in the Greeks, which never actually let their spirit sink, which wipes away the harshness of the earthly, transforms the excessiveness of force into exuberant play, and softens the harsh pressure of fate into gentle sternness.

This something is precisely the ideal in their nature. The whole remarkable appearance, the impression, which the works of no other people make on us, even with the most sober and objective scrutiny, comes from the fact that the Greeks indeed touch that place in us which is the final goal of all of our striving. We feel ardently that they have achieved the lot, reached the summit in their own way, where they can rest at the end of life's path. But their greatness arose so purely, truly, and genuinely from nature and humanity, that it does not force us to follow their way, but stimulates, entices us with enthusiasm, to follow our own way, by heightening our independence. This greatness relates itself to us solely in the idea of ultimate perfection, of which it is an undeniable paradigm, but for which we are allowed to strive by other paths, too.

One must perhaps be intimately familiar with the works of the ancients, therefore, in order not to regard the assertion of the unattainability of their virtues as a biased exaggeration. However, what arouses a favorable bias toward them is, that appreciation of the works of the ancients absolutely does not depend directly on learning or research. They make the most profound impression on the most unaffected souls, who are as yet uncommitted to any particular way of thinking, or style of art. It is furthermore remarkable, that the Greek works find access to every nation, every age, every state of emotion, whereas modern works, because they arise from a less universal and objective state of mind, in turn demand a more particular and subjective state of mind. Shakespeare, Dante, and Cervantes will never produce such a universally widespread effect as Homer, Aeschylus, or Aristophanes.

2. To compare the modern works of any type with those of antiquity, except as concerns positive knowledge and mechanical dexterity, demonstrates a similarly incorrect view of antiquity, just as an incorrect view of art is shown, if a specific object of reality is compared to the beauty of a work of art. For, just as art and reality lie in two different spheres, so do antiquity and modern times; they never touch in the realm of phenomena, but solely in truth—to which the idea alone, never perception, attains—in the original force of nature and humanity. Art and reality are two different images, just as antiquity and modernity are two different efforts to assert existence.

Reality, that is, truth and nature itself, is certainly not less noble than art; it is rather the model of art. Its essence is so great and sublime that, in order for us to approach reality to any extent, the only way open to us is to forge a path as yet unknown, just as art does. The smallest object of reality is infused with the same essence; and it is absolutely wrong, that nature in its perfection could be found only in all its particular objects taken together, that the totality of the vital force could be found only in the sum of the particular moments of its # being. Both may certainly appear this way, but one cannot



Wilhelm von Humboldt

think of space as being severed, or of time as being divided. Everything in the universe is one, and one all—otherwise there is no unity at all in the universe. The force pulsating in the plants is not simply a part of the force of nature, but all of it. Otherwise, an unbridgeable gap is opened between it and the rest of the world, and the harmony of organic forms is thereby irreparably destroyed. Every present moment contains all the past and future in itself, for there is nothing to which the fleetingness of the past can cling, as the perpetuity of living.

But, reality is not the receptacle in which this essence can be transmitted to us; rather, its essence becomes manifest in reality only in its original truth, and is, in this form, inaccessible to us. Therefore, because we do not grasp the existence of the actual objects through their inner life, we try to explain it through the influence of external forces, and that is why we misjudge both its completeness and its independence. Instead of believing reality's organic form to be determined through inner abundance, we consider it limited by external boundaries. These are fallacies, which do not exist in art, because art does not represent the essence of nature as such, but functions in a way designed to be understandable and harmonious to our sense organs.

However, our life has not been so stingily endowed by destiny, that it should not have been given something inside itself, and entirely outside of the realm of art, which allows us to draw nigh to the essence of nature, and this something is passion. In no way should one squander this name on the inferior affects by which one usually loves and hates, strives and despises. Profound and rich emotions know a desire, for which the name of enthusiasm is too cold, and for which longing is too tranquil and bland; under whose effect man still remains in perfect harmony with the whole of nature; in which instinct and idea become one in a way inconceivable with a cold prosaic approach, and which thereby brings forth the most beautiful birth. In such emotional states of mind, the idea appearing in reality is more correctly recognized, and one can truthfully say that, in higher and purer enthusiasm, friendship and love look upon their object with a more profound and holier gaze than does art. But such is the fate of

reality, that one moment it places the object too low, the next too high; it never allows the full and beautiful balance between the appearance of the object and the intellectual power of the observer, from which follows the inspired and fruitful, and yet always peaceful and calm, enjoyment of art. Therefore, it is not the fault of nature, but our own, if nature seems to be inferior to the work of art. If, therefore, esteem for art is a sign of a lofty age, then esteem for reality is the feature of an epoch having reached a still higher degree of loftiness.

We encounter that full and beautiful balance only in antiquity, and never in modern times. In the manner of thinking and activity of the ancients, mankind's pure and original natural force seems to have burst open all veils so happily, that it presents itself to our eyes in clearness and simplicity like a half-opened blossom, easily understandable. Neither laboriously scouting out the path it will choose, nor anxious about what it leaves behind, it abandons itself trustingly and confidently to the unlimited longing for life's full abundance, and expresses itself in a thousand always equally blessed images. We moderns only research, search, struggle, and battle, often to know the bloody sweat, but seldom the joyful ease of victory; we slave away in lonely, scattered, and isolated existence, never enjoying the beneficial buoyancy, with which a people in harmony uplift their fellow citizens on soil strewn with monuments to their glory and art, under a heaven smiling brightly on them.

Precisely the same characteristics which, upon observation, differentiate reality—in its particular, limited appearance—from art, likewise differentiate the ancient and the modern ages. Like art, everything ancient is

always a pure and complete expression of something spiritual, and leads to the unity of ideas. It entices one to become ever more deeply absorbed in each of its parts; the spirit is voluntarily captivated by its magic within definite limits, and then enlarged by it to infinity. The modern epoch, on the other hand, like reality, only hints at the spiritual, rather than portraying it actually and immediately; it often knows no other unity, than that wherein feeling gathers itself only because of reality, and at its behest. The modern often exercises his best and loftiest effect only by leading over and above himself, and beyond his limits. Even when the modern is infused by the same spirit as the ancients, and when his effects remain close to those of the ancients, they still lack the radiance that firmly unites and fuses everything by its own rays, just as a landscape on a cloudy day lacks brightness.

For, however much man may muse, and choose, and labor, the most delicate and loftiest of his works flow from the hand of the artist, even if he does not know it, penetrating the mind of the observer, even if he is not aware of it. Certainly, he owes this to nothing but the fortunate disposition of his nature and the propitiousness of the moment. He may be armed with genius and energy, as the limits of human nature alone permit it; however, that which especially radiates forth from him, is only what he directly is not-the power of humanity, which begat him; the earth, which supports him; the nation,

whose language echoes around him. Man belongs to nature and is not destined to stand there isolated and alone; the word he utters is an element or resonance of nature's sounds; the image he casts down is the outline of the mould, into which nature also poured her own image; his desires are directly the impulse of nature's creative power. This does not lessen his independence; for, in the totality of reality, the power of nature is his own, whereas in appearance everything is closed to him, nation, earth, heavens, surroundings, previous ages, and present time. These remain speechless and dead, unless he is able, through his own inner power, to open, to examine, and to enliven them. Therefore, the most certain characteristic of genius is to bring out everywhere, in every expression of energy, but most especially in the most complicated of all which is life itself, that which inspires, admonishes, and urges, by means of admiration or contempt, love or hate. And, where reality falls short, for genius to call forth a new and more beautiful world from the past—an aid, which contemporary man often feels compelled to use, whereas the ancients found absolutely everything they needed in their closest surroundings, according to their innermost feelings.

Nevertheless, a modern artist, to go directly to the area in which it is most difficult to take on antiquity, could compete with the works of antiquity in an excellent way. Now, as then, genius can still emerge; research has traversed many difficult paths since then, and skill, enriched by this and through experience, has made much progress. But, what remains unreachable, what separates the ancients and moderns from each other by an unbridgeable gap, is the breath of antiquity, which envelops the slightest fragment, as well as the most perfect masterpiece, with inimitable magic. This breath is not part of



The Horae, Greek goddesses of order in nature. (Paris, Louvre.)

the individual creator, it is not part of research, nor even of art itself; it is the reflection, the flowering of the nation and the epoch and, since they never return, it is also lost irretrievably with them. For it is a nostalgic, but also noble privilege of the living, that they never recreate themselves in the same way, and that what is past in them remains gone forever.

Since any work expresses more than the object it directly represents, everything that possesses a certain degree of characteristic specificity falls into place. But, what distinguishes antiquity in this point, is two-fold: first, that in the momentary mood and character of the artist, and in him and his environment, his epoch, and his nation, a wonderful and charming harmony reigns; and second, that all these things in turn are so much at one with the idea to be expressed, that it does not appear as a separate personality in opposition to all these things, but unites with them to a higher effect, to make them

more objective through subjective power. Neither would be the case, if the humanity that is expressed in antiquity, were not purer, clearer, or at least a more easily recognizable imprint of the ideas, which every truly human breast longs for; or, if these ideas did not inflame them more fervently than one would suspect. That breath of antiquity is, therefore, the breath of a humanity made radiant by divinity-for what, if not the idea, is divine? It is such a humanity that testifies loudly and spiritedly in the works of art, poetry, citizen's constitutions, battles, sacrifices, and festivals of the ancients, and actively bears witness to our dullness and pettiness, but shows at the same time what mankind could be, toward which we can struggle along differently traced paths. For, it would be unfortunate, if the merits of antiquity were proclaimed only in dead marble statues and not also in a way equally uplifting and inspiring in customs, thinking, and deeds.

So once again: nothing modern is comparable with anything ancient;

"with gods should a man not measure himself";

and what distinguishes antiquity, is not merely a characteristic specificity, but a universally valid superiority, which demands recognition. It was a unique, but happy occurrence in the history of the development of mankind, that out of the ages, which ought to have matured through great effort, a people emerged who grew out of the earth effortlessly and in most beautiful bloom. How this should be comprehensible to us, is already indicative of the developments up to our time; but the whole point of view, especially in its particular uses, can only be justified by the completion of our modern works. Meanwhile, for here and now, and also without further explanation, a thesis is posed which is already quite demonstrated, for whoever accepts it as true. The test of modern nations is their feeling for antiquity, and the more they value the Greeks and Romans equally, or the Romans over the Greeks, the more those nations will fail to achieve their characteristic, specially set goal. For inasmuch as antiquity can be called ideal, the Romans participate therein only to the extent that it is impossible to separate them from the Greeks.

Nothing would be so counterproductive as to begin a work of history from a viewpoint that owes more to a perhaps forgivable, but always ill-conceived enthusiasm, than to calmer contemplation. We cannot gloss over this remark here, since here is where one is most likely to object, that the assertion just made about the Greeks is exaggerated and prejudiced. And, certainly, it would be both exaggerated and prejudiced, if our argument assumed that the ancients were a superior, nobler branch of humanity than we, as some, who are more concerned to explain world history than to investigate it, claim, concerning the first inhabitants of our globe. They were not divine creatures, so to speak; but, their epoch was so fortunate, that it expressed each beautiful characteristic that they possessed, completely and precisely; not what humanity can become in itself, separately, and diffused, and gradually, and prior to cognition. They stand alone as an unreachable model, but only in the way that they can appear as a living and unique phenomenon.

3. For, if we were to summarize briefly, what particular merit, in our opinion, distinguishes the Greeks above all other nations, it is that they seem inspired by a dominant instinct, from the impulse to depict the highest life, as a nation, and seized this task at the narrow boundary, below which the solution would have been less successful, and above which it would have been less possible for them. In addition to the sensuous liveliness of all energies and passions, and the beautiful inclination to always wed the earthly with the divine, their character also had in its form the singularity, that everything in it expressed itself purely and happily. Everything in it that presented itself outwardly, was transferred with clear and certain outlines from its inner content.

We pause a moment at this last point. That, by that means, the distinguishing characteristic of the Greeks lies more in the representation of what they were, than merely through some particular, they absolutely deserve to be called the ideal, because the conception of the ideal necessarily entails, it yields to, the possibility of the appearance of the idea. Indeed, what one would always choose as the predominant trait in their spirit, if one had to name one only, would be the attention to, and delight in, harmony and balance, and to want to absorb only the noblest and most sublime there, where it harmonizes with a totality. The disproportion between inner and outer being which so often agonizes the modern age, while on the other hand it serves as a fertile source for shocking or thrilling emotions for it, was absolutely alien to the Greeks; they did not know the preoccupation in thoughts and feelings which is a residue of everything expressed, and what did not yield spontaneously and naturally to the two-fold realm of life and poetry, did not belong to their pure, sunny horizon. Nemesis was a true Greek deity, and although its original idea is common to all times and nations, nowhere was it so delicately, widely, and poetically elaborated, as in Hellas. But, the Greek's aversion to the disproportionate did not actually spring from softness or weakness in the face of excessive imbalance, or even from the usual alienation from nature, but it sprang directly from the necessity to break forth everywhere in the maximum life, which only springs from that harmony which excludes nothing, and is the universal organism, from the profound feeling of nature. Thus, they supported both elements of each truly good spiritual taste's opposing side, one against the other, since taste always remains one-sided and corruptible, if it repulses or attracts excessiveness and force, taken absolutely and in themselves.

An individual is in reality an embodied idea; the physical life force is at every moment renewed striving; the idea of organism is morally the same attempt to assert the particular spiritual character in reality. Therefore, insofar as life appears as a continuous creation, and character appears as the result of it, life indeed can and must be considered as art, and character as an artwork. It now belongs to the genius of art, to harmonically understand, and to intensify, the two-fold condition of the idea and the phenomenon, which every work of art simultaneously subjugates (since, as some claim, the beautiful is never created by relaxation), such that they seem created one only for the other; as it discovers the indivisible point, in which, after an enormous struggle, the invisible is wed to the visible; likewise, this adds to genius in life, and the maximum of all genius, that of a totally lively and harmonious people.

Therefore, what the Greeks actually possessed that was superior to us, be it by merit or accident, and wherein exclusively we never may venture to rival them, was this innate sense for the clearest, most precise, and richest manifestation of the highest summation of human life in their individual and national character.

4. But, that they found this maximum, they thanked the simple disposition of their nature; that they succeeded in the most difficult of all arts, life, they thanked the natural impulse to which they yielded freely and without reservation.

All individuality is based on, or rather expresses itself, in an impulse, and is one with that which is its particular characteristic. From the lowest up to the highest types of life, we recognize each creature in its totality and in the idea of its nature, less by its way of being, than by its striving. In its striving, all its past, present, and future conditions combine together as a unity. As life neither stands still nor can be thought to be moved by an external cause, so the entire universe exists only by impulse. Nothing lives and exists, except insofar as it strives to live and exist; and man would be absolute lord and master of his being and his perpetual existence, if he could destroy his life impulse by an order of his will. Of course, the impulse is self-determined, and determines the forms of life in turn. All differences among the living, among plants and animals, among their manifold species, and between nations and individuals in humanity, are therefore based solely on the difference of the life impulse, and its ability to work through the resistance which it finds.

This impulse strove to be pure and complete humanity with the Greeks, and they relished human existence with cheerfulness and joy. As man is able to lift himself to the heavens only because he is rooted firmly on earth, so too the sublime quality in the Greek is nothing other than the fruit of natural instinct ennobled by heavenly ideas. The rough and completely unformed Greek undeniably had also two properties, which, as dangerous as they may be in many regards, still certainly promote the development of mankind: Love of independence, and dread before that one moment dark, the next moment dry and boring seriousness, which depend more on the business rather than the pleasures of life. Naturally, love of independence ripened later on to the noblest liberty of the citizens, but, in itself, it was nevertheless generally more a distaste for every constraint, than a deeper aversion of their disposition to injustice alone. Therefore, it manifested itself, and only too often, against the constraint of prevailing laws, and led more to a capricious choice of a self-pleasing lifestyle and activity, than to an isolated and narrowly defined political passion, as was the case with the Romans. However, it removed constraint of caste, priest, and custom, which otherwise stifled the spirit of so many ancient nations. It did away with the inequalities of status in life to the point of destruction, and brought every citizen into the most diverse and universal contact with all others. The other of the two aforementioned character traits was based especially on a rarely interrupted disposition to happiness, which, even still rough, is alone a possession of one with a good-natured soul, with the fortunate gift of unbelievably effortless excitability, which resonated in unfettered imagination with the slightest touch of any object of nature, immediately sounding all the strings of the spirit. Consequently, the Greeks did not need savage and shocking entertainments, as the more materialistic Romans did-early on, they had gladiator sports and bull fights, but they were never significant. The Greek happily let someone chatter to him, tell him fairy tales and stories, and even philosophize to him. Ossian and Atellanian plays and buffoons were no requirement for him. He did not like the dry seriousness of life's business, the trade, agriculture, or the tribunals, according to the wearisome way the Romans exercised administration of justice. But in no way did he avoid the more profound science and art. Lastly, endowed with a lively sense for everything, biased and prejudicial judgment of matters was alien to him, and already in Homer, Paris reminded Hector very beautifully not to scorn any gift from the gods. To identify the noblest jewel of a nation, it is sometimes useful to see it in its distorted degeneration. The Romans describe the degeneration of the Greeks to us. Not, we would hope, all Greeks (since those who appre-

ciate their forefathers will hide in solitude in the walls, made cold and empty by the destructive Roman emperor, as one who is conquered does with self-respect), but those Greeks who, since they sold themselves every day, like a contemptible sort of high-class slave, cavort in the houses of the rich Romans. They describe such Greeks as idle, curious, talkative, agitated, and eternally changeable braggarts. But even with these defects, justifiably despised, which Plato complained of so frequently and eloquently in the most beautiful time of Greece, a spark is still always visible of the old spirit. There was still freedom from the necessities of life, still a certain tendency to that which does not physically flatter the senses, but as breath and fragrance, as it were, merely caresses the imagination and the spirit. Something still remains

which, if it does not lend the soul heavenly wings, still throws off the burden of the body. Our own leisure time, banal with nosiness and chattering, can again return to that noble leisure, to spiritual investigation, recitation of poetry, and such things. Our instability can also return everything to the beautiful concept still so diversely great and admirable in humanity and nature as well. In the most beautiful epoch of Greece, desire for fame and love of sociability are closely united with each other, such that the former, instead of straying far and searching for its gratification in the distant, limited itself to those topics, which were situated immediately in the circle of its citizens and community, and immediately picked the fruit of its work in the same place. Therefore, the victories of the great games were especially preferred to any other glories. Because it was achieved before the eyes of the Pan-Hellenes, the name of the contestant and his city resounded loudly in the ears of friends and envious people; and since the victor returned to his fatherland, consequently the reflection of this glorification radiated to him eternally. Love of the fatherland is derived from this leisurely sociability, free from occupation; and since all Greeks knew a common fatherland, Greek soil and heavens received a particular character. The patriotic gods also descended into the circle of the Greek inhabitants, and they did not desert their solidly established homes like unsettled humans; the native heroes did not abandon their graves. Thus, someone banished was not

> simply separated from the lifeless fields of his homeland and the memories of his childhood and youth, but also from the loveliest joys of his life, the loftiest feelings of his breast. Consequently, frequent banishment became with the political establishment of Greece one of the richest sources of concerned feelings among the Greeks, and Pindar describes this, when he says:

[The quote is lost]

So, Pindar expresses nothing more than the highest conception of happiness of every Greek. These few traits asserted here should only encounter the objection, that in the former perhaps too much, and something too sublime, of the Greek character is claimed; but they show, that the same original, even in its degeneration, still possessed not entirely faded capabilities,

which, with fortunate development, could grow upwards to the maximum and most beautiful. But, man rarely knows the heavenliness of his pure and uncorrupted nature, and mistrusts it when he sees it, like a strange image or a deceitful illusion. However, the Greeks were formed so fortunately, and so beneficially favored externally by fate, that that impulse just mentioned, rarely or never straying from its goal, made itself perfectly dominant. What seemed only to be capable of the work of genius, was therefore more the work of nature, as generally always in men the finest educated is joined directly to the source of what is originally the best in man, which is replicated in him with more clarity of consciousness. Also, in society, the noblest and most sensitive individuals alone stand with the lowest, who are still the class of people living in natural simplicity in direct contact with the senses and perception. Only those people suspended in the unblessed middle, in contact with neither, are equally alien to true nature



Menelaus bearing the body of Patroclus.

and true refinement, one moment without shape, the next moment distorted.

Despite all this, no one easily mistakes or confuses the impulse, of which I speak, with instinctual natural force, or lower passions. Here, what is important, is that once the divine and earthly material is combined in human beings, it is unfair to separate either unilaterally. Nothing of human worth can arise in it, without freedom, that is, without action, which pertains solely to the personality; consequently, the least upon which its entire individuality depends, is its personality itself. But, on the other hand, the principle of life must also actively correspond to the sensation, just as the first impulse corresponds to all action, as the idea legislating and ruling in us. Further, it cannot be put forward by an arbitrary determination of the will, since it rather forgoes all expressed volitions.

Only once one is certain, not to mix the basic impulse of individuality (which can never purely and entirely manifest itself as something infinite in phenomenon) with what one naturally, also properly, terms the original predisposition of a character, so what has just been said, is designated with other words only as far as this basic impulse, the life principal of the individual, possesses freedom and necessity at the same time, according to the degree and the quality in it mutually demanding and determining. That is, that it must be situated in the region, in which freedom and necessity perish in a third, higher idea. Likewise, in its creation: in the physical world of organism, in the aesthetical work of art, in which morally the spiritual individuality of its work is always a true infinity, there is something, from which, regardless of the necessary connection of all parts, freedom does not simply stream forth, but where that necessity itself is only comprehensible through freedom.

What here is called an impulse, is perhaps more accurately named a self-acting idea. But I avoided this otherwise indeed synonymous expression, because it can lead to a misunderstanding, that the idea would lie completed there, and would carry itself out only gradually; whereas it is my conviction, that the always-acting, fundamental power of nature, the epitome and standard of all ideas, exists in an activity, determined at the outset by its own causes. Also, the concept of an impulse would be more useful for a work of history (understood as always a free and legislative impulse), than a self-acting idea, since history does not, as philosophy, go forth from nature's laws, but toward them, supported on a substance mindful of collected phenomena. That primitive impulse arises afterwards, as will be shown later by the example of the Greeks, in a multitude of subordinate inclinations and attempts, one moment as in brilliant reflections, the next as in half-formed shadow images.

The irresistible impulse which still springs from the part of feeling, mind, and soul, in which only self-given law rules, the German calls the word longing [*Sehn-sucht*], which is not familiar or known to any other nation (since the German language is by preference at home in the region, which, to be entirely surveyed, requires the aid of feeling), and from that, humanity has a determined character only insofar as it knows a definite longing. Such a longing bestirs itself in every human being, but few are fortunate enough, that they manifest it pure and defined, not diluted in contradictory affects. Still fewer, are those who approach it on the true ideal paths of the archetypes of humanity. And rarest is the



The Moirai, Greek goddesses of Fate. (Roman relief, Schloss Tegel, the residence of the Humboldts, near Berlin.)

good fortune, that this two-fold condition is achieved, along with the external conditions to please man sufficiently, that he gains new strength by satisfaction with this situation.

The ideal nature of a character depends on nothing so much as the depth and the type of longing that inspires it. For the expression of the ideal adds yet something else to morality, not greater (for morality always remains the maximum), but more comprehensive, since an ideal character does not merely subjugate itself to one idea, as duty subjugates the simple moral character, but conforms itself with all ideas of the whole invisible world. The ideal character strives to produce such a disposition to represent all humanity in one particular case (in its dignity and nobility), as the creative artist strives to produce a beautiful work of art. And there, the ideal character finally is creative in the true sense, while it transforms the idea of maximum humanity, otherwise only intuited by thoughts, into a fact of nature. For this purpose, simple adjustment of thinking and exercise of the will does not suffice; the mind must be made capable of that which no conception and no feeling reaches, and which, when it seems to freely form the imagination, is created by it from the depths of nature. In other words, the idea, which makes up the soul and the life of nature and from which comes all meaning and all form, must appear to the soul and mind and awaken the love [i.e., $agap\bar{e}$ -PN], whose immediate and natural fruit is that high and divine longing.

Perhaps "longing" seems to be a silly, trite expression of a frivolous era to many people, who would rather exchange it with the directly vivid and active term, "striving." But longing and striving, both taken in their most sublime sense, are not synonymous. In the word longing, the unattainability of that which is longed for, and the mysteriousness of its origin is expressed, while striving goes from a clearly-thought-out concept, to a determined target. Striving can be weakened and thwarted by difficulties and obstacles, but in the face of longing every chain falls broken to the ground, as by a magic recumbent on itself. The artist who is creative longs for the achievement of beauty, which still floats in an unfixed image of his imagination; but, he strives after he formulates his thoughts to be faithful in their execution. The Roman had a zealous, earnest, powerful striving, from which grew a connected activity and steady, gradually progressive results. The Greek was inspired by longing; his deliberate and worldly activity was often very dispersed and cut into pieces, but by his side, unsought, that longing germinated heavenly and enchanting blossoms. This stands in relationship to the world, in that every greatest undertaking, be it addressed to freedom and fame of the fatherland, or to the well-being of humanity generally, is ennobled only the more thereby; that longing above all imparts the idea to us, which should stamp reality. No man deserves being called great, even if he were the most blessed benefactor of mankind, if the breath of such a longing does not touch him. This will have to be discussed further elsewhere, if it is not by now self-evident.

Transferring these ideas to the attentive contemplation of life, one soon becomes aware, mostly in himself, that there is a three-fold type of education: first, the enlightenment of the understanding; second, the strengthening of the will; and third, the inclination to the never-expressed and eternally unspeakable, such as physical and spiritual beauty, truth in its ultimate foundations, and the freedom by which form overcomes material in lifeless nature, and in the living, free thought overcomes blind force. This last would best be called the education of feeling toward religion, if this expression, "religion," were not at the same time so noble and so misused, that one must always be careful, not to desecrate religion one moment by the most sublime thought, and the next moment (in its degradation) not to profane higher thoughts by the use of the word religion. The first two types of education can both be the work of instruction and example; but the latter belongs to the soul itself alone, and the experience of life, especially to the fortunate inclination, to allow the world to operate on oneself, and to assimilate its effect in self-created solitude. Here it reveals, what a well-tuned mind and soul, strong and gentle at the same time, knows to produce from the manifold emotions, like desire, love, admiration, adoration, joy, and pain, by whatever names they might bear, which one moment visit the heart in friendly way, and the next moment furiously attack it. For these and all other affects are the true means of awakening that high and noble longing, just as longing purifies the affects in turn, by strength. In him in whose breast these emotions have raged most frequently and powerfully (wherefore women are better attuned, and by their situation more favored, than men for the most part), longing ripens to the noblest and most beneficial powers.

As, therefore, every worthy character demands power and energy of the will, so an ideal character demands still especially, that the intellectual impulse residing in every human being become such a definite and dominant longing, that it give the individual person a specific form, and give the conception of humanity a more or less broadened one. As life generally must be deemed a partially successful war of the spiritual with the physical, so the formation of individuality by the ruling of the fundamental impulse guiding it, is the utmost summit of victory achieved in life. For just this reason, it is the ultimate purpose of the universe; if one averts his glance from it, every apparently noble endeavor becomes low, mechanical, and earthly. The investigated, perceived, surveyed universe, the penetrated depth of truth, the soaring heights of feeling, are wasted powers playing with vain shadow impressions, if they do not ultimately reveal themselves vividly in the thinking, speaking, active human being; if what they effected in him, does not reflect back from his glance; if his words and deeds do not bear witness to them.

Indisputably, such a determined character resides in everyone, as well as the definite impulse to physical organization. The difference between them is only, that, while the latter (a few cases excepted) always reaches its ultimate goal, the former only very rarely succeeds, to the extent that the material, completely conquered, takes on its form, truly and purely. Yes, it cannot even properly be assumed, if one wanted to agree that there was in some epoch of creation a chaotic flood of organization of forms, and the outline of the present shapes and present organs of life would have fluctuated back and forth for a long time, before they withdrew into the now definite boundaries and rigidly divided species-I say, if we assumed that, we cannot now assume that a similar epoch of the moral organization of forms presides, although, by the way, actually ideal characters indeed enjoy the privilege, as an individual, to be singled out as a species. Rather, for all time, the number of ideal characters will be small, the smallest number those who appear in active life in important ways, as Aristides, Socrates, Epaminondas, Philopoemen and others among the Greeks, Scipio and Cato among the Romans, Luther and Friedrich in modern history; with a larger number of ideal characters reflecting in their works, as with so many poets and sages, the form transposed more into a disposition than into action; and most will reflect only particular, prominently worked out features, mere elements of ideality, not ideality itself, and entire nations will fare no better.

However, nations belong to the greater productions of the forces of nature, in which its effect remains more equal, and strikes that which is effected similarly, to the degree that the will of the particular loses itself in the masses. As nature crowds together coral reefs on certain shores, germinates families of plants in certain regions, it also scatters peoples and tribes, and when they ere long wander over the hills and rivers and finally also the mountains and seas which separate them, nature still acts on them continuously in two powerful matters; procreation and speech. Its dark and mysterious forces govern the former entirely, and likewise give the latter that original expressiveness and color; the tone, the timing, and the original spontaneous connection of the corporeal and spiritual belong to it. Therefore, if it is also difficult to find an ideal national character, and if one also, in order to be just, may put to the side that this virtue belongs exclusively to the Greeks, still one must admit nevertheless, that, to educate by having an ideal form of character in mind, to inspire and excite oneself to reproduce it by particular discovered aspects and efforts, the contemplation of the Greeks is useful and indispensable.

Nature and idea are one and the same (if one may use the word idea, taken absolutely, for the type of universe, which, bestowed with self-acting energy, gradually forms and reveals itself vividly). Nature is idea, as acting power; idea is nature as reflective thought. In individual human beings they both occur separately, ideas as thought, nature as feeling. They can only be associated imperfectly, by good fortune in genius, or by exertion of the will, always possible to anyone. Therefore, all ideal form reveals itself more easily, where, as is the case in the character of whole nations, nature's part is more prevalent.

Before an ideal character emerges, one cannot divine its existence; it is a pure and new creation, it is not composed from already known elements. Rather an eternally young, eternally new, inexhaustible power recast the elements into a new form. Who would have anticipated beforehand, only to pause by poetic characters, an Oedipus of Sophocles, or an Othello of Shakespeare? Who would have considered a nation even possible, as history shows the Greeks to us? But this is the case with every individual; the idea of each individual is only possible in that it appears as fact. In this connection, we cannot help commenting, how, when one looks on individuality merely as a coagulation of material around definite points of formation, as the determination of a force in an instant, at a place, which connects thousands and thousands of other points, out from which it roams and appropriates the universe; like an infinity, which never repeats and never exhausts itself; like a unity, which in the most wonderful diversity always travels the same course, from the same origin to the same target—I say, if one looks at individuality in this way, its contemplation has either the merits or demerits of its uniquely entire, independent enticement.

But, if individuality is to be ideal, it must surprise by more than mere novelty, it must reveal a great, worthy, universal idea of humanity to such an extent, that it is only comprehensible by its form, that it seems created by it alone. An ideal character must have enough vitality, to move himself and his observers with him from the narrow region of reality, to the wide realm of ideas. It must perceive the seriousness of life only through the seriousness of ideas which it awakens, it must rescue its terrors and pains to sublimity, to widen its joys and pleasures to gracefulness and intellectual serenity, to appear as a victor in all life's battles and dangers, who is certain to secure victory for the great, noble, and immortal in humanity over the low, limited, and mortal. Freedom, therefore, is its essential condition in every noble sense of the word, profound love for wisdom and art its true companions, gentleness and grace its unmistakable characteristics.

Previously, we mentioned Epaminondas, as an ideal character, and if one goes back to the times of the heroes, where fable and history are mixed together, I do not know, in fact, if the whole of antiquity would prove to be more perfect and more poetic than his era. Praise of his *polis*, earned nobly, and the freedoms of Hellas, are the

particular feelings that inspire him. No blood stains his sword, than that shed for Greece. As soon as their war is hard won, he becomes the happy founder of peaceful cities. As Greece needs no more of him, he returns to the humble circle of his citizens, and contentedly practices wisdom and art. He allays the risks of the people's tribunal and death by calm serenity and silent, serious pride, and dissolves them in a pleasant joke. No fortune makes him presumptuous, and no misfortune clouds the sparkle of his glory; yet, he embraces death, and squanders life first, since he is certain of the victory of his citizens. Where is there a more uplifting drama, than the building of the city of Messene? After the successful war for freedom, Epaminondas had returned to one of the noblest, most peaceful nations of Greece, and by their innocent misfortune, and the failure of all utmost efforts of heroic, most moving patriotism, after an absence of centuries, again repatriated to their fatherland, and gave them, not without favorable promises of the heavens, a new polis. Afterwards, sacrifices were made to the gods, by Epaminondas and the Thebans to Bacchus and Ismenian Apollo, by the Argive to Juno and the Nemean Jupiter, by the Messenians to Ithomenian and the hero's twins, whose anger was now silently appeased, and by the priests, who were deeply initiated in the great goddesses and the bearers of mysterious rites. They invited the heroes to live in the future walls, first Messene, the daughter of Triopis, then Eurytus, Aphareus and his sons, the Heraclidae Cresphontes and Aepytus and above all the noble but unlucky Aristomenes. And now the three united nations spend the day, repatriators and repatriated, in joint sacrifice and prayer. Next, in the wake, the circumference of the walls rose, and in the walls the houses and temples climbed upwards. Argive and Theban flutes rang out to the chaos of work, where the old Sacadas with his simple music, and later, Pronomos, with his artful music struggled, competing for the prize. The blooming under Epaminondas's caring hands, was the last genuine beautiful blossom of the Greek spirit, and died there with him, afterwards never returning again. Two reasons made it necessary, even with the risk of digressing from the main topic, to enter into these deep reflections. Otherwise, it would have neither the most essential feature of the Greek character, nor could our view of its relation to the present epoch be clearly recognized.

For, if the existence of such a deep and pure longing belonging to every noble human breast were not touched upon, if we were not to have drawn attention to it as the principle through which each individuality receives its befitting completion, it would never become sufficiently clear, how the ideality of the Greek character were possible only by the nature and character of these incessantly blazing, eternally warming and inspiring flames. Above, we have located the particular characteristic of the Greeks in a certain impulse inspiring them to represent the pinnacle of life, as a nation. We have further said, that the natural inclination of their very being led them, because longing itself, to be absolutely pure and full humanity, expressing itself with inner determination, and externally more by favorable circumstances.

But, this striving already carried the stamp of that higher longing in itself, from the earliest times that we know. For the more the Greek was man, the more he walked on the ground with his feet, so to speak, only to raise himself over it by his spirit. He connects everything to the heavenly; he creates an independent realm of ideas and fantasies from out of every point; his dearest enjoyment was sociality, communication of ideas, and feelings; in work, he esteemed the process, more than the result. Too movable, to let anyone shackle him, he carried over more freedom into both family and political relations, than was associated with the stability of either. His patriotism was more love of fame, than for the prosperity and the preservation of the fatherland.

Several of these traits, especially the latter ones, usually belong only to savage nations, prior to the development of civilization, and vanish with the advent of society. But the Greek distinguished himself precisely, in that he, in the midst of civilization, maintained and developed them, and his natural character immediately became his ideal character. This confirms anew the presence of that longing faithfully accompanying him, in both his raw and his finely cultured condition, whose aim was intellectual and divine, but among these, that which mind and imagination formed in sound and shape. Thence, he was fortunate enough, to be able to aspire to the ultimate goal to which a nation would want to be elevated, as it were instinctually, without internal contradiction and strife. For destiny rules over nations, as it does over individuals; the one it equips more sparsely, the other more richly, and only a few become conscious of the efforts, directly and without confusion, which they are destined to perform.

But secondly, a somewhat detailed illustration of the nature of individuality was necessary, because the investigation of the economy of destiny with individuality, if the expression is permitted, and the investigation, of what character types were produced by the nations and the centuries which are the subject of our consideration, and how much to rescue from the rubble for ourselves today, to apply to our prosperity, always remains a main goal of this type of work. For since herein exists the goal of all human striving—namely, that in the course of centuries, be it in individuals or nations, an ever higher conception of humanity gradually builds up as hard facts—thus no

investigation even remotely touching history may turn its gaze elsewhere, least of all one concerning the history of the Greeks, which undeniably connects antiquity to modern times. And this is now still the view from which we proceed. Life should stitch and create ideas by the fullness of its movement, by ideas superior to itself and to every activity. Man should possess a power, both by his own effort and the favor of fate, to produce spiritual phenomena which, measured by the past,



Poseidon, Apollo, Demeter, Aphrodite, Eros, from the east frieze of the Parthenon. (Acropolis museum, Athens.)

are new, and measured by the future, are fertile. And, as art seeks out, or better, generates an ideal beauty in a pure and incorporeal idea, in the same way philosophy should be able to generate truth, and active life generate greatness of character. Everything should therefore constantly remain in activity—creative activity; everything should amount to the fathoming of the still unknown, and the birth of the not yet seen; everyone should believe himself now, to be standing at a point which he must leave far behind.

Who hereby does not agree, whoever imagines, that superior art could exist only in the attainment of a pleasing truth, that superior philosophy could exist only in the ordering of clearly developed conceptions, that superior moral value could exist only in well-ordered happiness or in private and social perfection attainable by mere lawfulness, without feeling that beauty, truth, and content of character spring from an effort incomprehensible in its character and method, which cannot be judged with existing yardsticks-whoever does not agree, we must part company with him here. Everything said about the Greeks and their relationship to us up to this point must seem to him to be exaggerated and chimerical, and since the point at which for us the truth first begins, designates precisely the end of the truth to him, so his and our paths absolutely couldn't meet at any step.

Having not proved it up to this point, since it actually required no proof, as it is generally shown from the undeniable impression that the Greeks possess an ideal character; and after indicating where it, in effect, lies; we shall now still have to define the nature of its ideality still more precisely, and especially in contrast with our modern character. For what is intended here, is not an actual description of the Greek character as such, but only an investigation of its ideality, to answer the questions: Is it true? Or, only apparently so? Upon what is it based? And, how must we deal with it for our benefit?

Enthusiasm is inflamed only by enthusiasm, and only the Greeks exercise such a wonderful effect on us, because the heavenly longing that shines out through them expresses itself vividly. Otherwise, it would be incomprehensible, how often their insignificant fragments so deeply move our soul, or why various contradictions, deficiencies, and defects which we come across in them, do not disturb that effect on us. It was a mistake for a long time, and is often still today, to compare their works with the types which one can classify in a scientific respect; to want to search for rules and theories in them, instead of purely and clearly acquiring the great and graceful spirit of their creators. As long as a nation looks upon ancient Greek works as literature, as having an intention to produce something scientific (as one can with the moderns, the Latins, or the Hellenes themselves since Alexander), it erects a brass wall between true Greekness and itself, and Homer, and Pindar, and all those heroes of Greek antiquity remain silent to it.

It is only the spirit, only the way of thinking, only the view of humanity, of life and of destiny, that attracts and fascinates us in the remains of that epoch, which possessed the wonderful secret of simultaneously unfurling life in its total multiplicity, to deeply move the breast in its mighty depths, and then to control the upsurge of such excited imagination and feeling by a rhythm, always simultaneously moving and calming. One must be to some extent in tune with them already, in order to understand them, to not overlook their profundity one moment, and to recognize their delicacy the next. But, it is noteworthy, that nothing is so injurious to this understanding, as a narrowly defined education, and nothing is less essential than knowledge or scholarship. With the Romans, for example, it is difficult to believe that they

were only somewhat profoundly affected by the spirit of the Greeks. With Cicero, Horace, Virgil, up to the Augustinian and following eras, the opposite is actually evidenced by particular facts, and if perhaps the Romans grasped the Greeks in some period more simply and naturally, it was in that of Ennius, Plautus, and Terence. Even in modern nations that early on were familiar mainly with the Latin authors, is it still obvious that the Greek authors were understood only partially or incorrectly. On the other hand, no one can deny that the Germans know them truly and genuinely. Yet the Romans were themselves descendants of the Greeks, lived at the same time with them, and possessed a language, which can be accounted to a certain extent as a dialect of Greek: and we are more than 2,000 years distant from their most beautiful age, and speak a language, which can be praised only perhaps as a later-formed and less-favored sister of the same extraction as that of theirs. Such a wonderful difference in the destiny of the formation of the nations, deserves a more exact illumination and an exhaustive search for its causes, if this were not to lead too far from the objective.

If man is interested in man, it is not his bodily pleasure and pain, or his external activities and impulses, which usurp the participation of the highest in our feelings, but the universal human nature in him, the interplay of its energy in deeds and activities. When history appeals to us, we demand not just to know how this or that mass of people was oppressed or oppressed others, was victorious or defeated, but we want to know, as in a great panorama, and to the enrichment of our simple cognitive reason, what fate is capable of, over man, and yet more, what man is capable of, over fate. Nothing is more tiring than the multiplicity of reality, and the countless number of its chance events, if in the end the idea does not flow forth. But reality's greatest number of chance events seems few to us, when our mind, guided by objects, discovers its way to the idea. For the simplicity of the idea allows itself, like a many-sided, polished mirror, to be recognized only in the multiplicity of phenomena. Therefore, where a man, a human activity, or a human event carries an idea corresponding most visibly to it, as a transparent veil, it seizes the mind, soul, and feelings most vividly, and effects them most beneficially.

And this is the case with the Greeks. The Greek treated everything symbolically, and he creates a symbol of everything that nears his circle. He becomes a symbol of humanity himself, and indeed in its most delicate, purest, and most perfect form.

The conception of symbol is not always correctly understood, and is often interchanged with allegory. Of course, both express an invisible idea in a visible form, but in very different ways. When the Greeks named Bacchus for his wings, or portrayed Mars in chains, these were allegorical representations, and such was Diana of Ephesus. For it was a clearly-thought-out idea arbitrarily attached to an image. On the other hand, Bacchus and Venus, Sleep as the pet of the Muses, and so many other figures of antiquity, are true and genuine symbols. They originate from simple and natural objects-Bacchus from a youth overflowing with well-developed strength; Venus from a maiden who just blossoming, becomes conscious of these blossoms with displeasure; the freedom, with which the soul in sleep, unfettered from all worries, roams through the delicately connected realm of dreams. As they start, I would say with these objects, the Greeks arrive at ideas which they couldn't know before, ideas which remain eternally inconceivable in themselves, and separated from their sensuousness can never be purely comprehended, without being robbed of their individuality and true being. As, for example, that which the source of poetic inspiration breaks forth, which, as Schiller so beautifully expresses it, first then even powerfully bestirs itself. As in sleep, the limbs, the colder powers, so to speak, rest numbly, and life, like a dream, overflows with a new brilliance. In the last case, one grasps the idea of sleep more deeply and more beautifully. Man, with trust in the deities who weave protecting laws, closes his wakeful eyes, and withdraws and abandons himself, when he happily withdraws from the tumult of life to the womb of lonely night, joyfully forsakes even pleasure and the purest and most ethereal part of his being, the never-sleeping power of imagination. He awakens, one moment moved by delightful dreams, with melancholy emotion, that first he must annihilate his being as it were, in order to taste divine blessedness, the next moment shudders deeply from fright, that spirit and fate perhaps treacherously lie in wait for him, where he finally, with each rising and setting of the sun, as in a short prelude, always completes anew and begins the great part of his being again-the idea, expressed in this image, appears more profound and more substantial to him. For the symbol has the uniqueness, that the representation and that which is represented, always alternately invite the spirit to linger longer and to delve deeper into it. On the contrary, allegory, once the mediating idea is discovered, like a solved puzzle, leaves behind only cold admiration, or the banal pleasure of a gracefully successful form.

Mere and genuine allegory is alien to the Greeks. Where it is found, it belongs for the most part to a later epoch. For, where the mind gives up perceiving symbols, symbols are easily degraded to mere allegory.

—translated from the German by Pat Noble

LaRouche Launches Revolutionary Youth Movement—For



Lyndon LaRouche addresses San Pedro, California cadre school, Aug. 17-18, 2002.

EIRNS/Samuel P. Dixon

SPECIAL FEATURE

a New Renaissance!



San Pedro, California Youth Movement cadre school, Aug. 17-18, 2002.

revolution has begun inside the United States, and around the world, led by a rare collection of young people who, having grasped the nature of the historical period we are living in, have decided to dedicate their lives to ensuring that the world will not descend into a New Dark Age, but rather initiate a new Renaissance. These young Americans—political "canaries in the mine"—are responding to Lyndon LaRouche's call for an aggressive Revolutionary Youth Movement, throwing themselves into his Presidential campaign in increasing numbers as the collapse has accelerated during 2002.

LaRouche gathered the leadership of this new international movement—which he had launched several weeks earlier at a San Pedro, California cadre school, near Los Angeles—at the semi-annual conference of the International Caucus of Labor Committees and Schiller Institute, attended by 1,000, over the Labor Day weekend, Aug. 31-Sept. 2. On this weekend, which traditionally looks forward to November election day, LaRouche's keynote speech also detailed an "emergency November program" to rebuild the transport and economic infrastructure of the United States, now collapsing in bankruptcy shutdowns, "presenting the President and the incoming Congress with the emergency program they must immediately adopt" to stop the disintegration of the U.S. economy. The LaRouche Youth Movement is mobilized with this idea.

A Generation with 'No Future'

LaRouche is a world-historic individual in this crisis, as Franklin D. Roosevelt—whom he cited as a model in his keynote—was such a personality, who revived the nation from the last Depression. In giving the youth now joining him, greater freedom and responsibility in his movement, LaRouche stressed that the key to acquiring the courage required to lead in a time of crisis, is the sense of personal identity, based on the knowledge that, although life is mortal, one achieves immortality, by doing something "which was needed, in honor of past mankind, and for the sake of the future of mankind."

Over the course of the past, "Baby Boomer" generation, everything achieved by Roosevelt has been largely destroyed. The shift from producer to "consumer society," the rock-drug-sex counterculture, and the fixation on "personal needs" in opposition to the General Welfare on which FDR based his Presidency, has made the U.S. economy of the past 35 years—now breaking down—a global looting machine on the model of the Roman Empire. It has produced a youth self-conceived as "the no-future generation": to whom no future mission is offered in school, economy, or society. These young people are responding now to LaRouche's message, that they must make their own futures by taking on the mission to rebuild America and the world.

Cultural pessimism is pervasive among this generation. Many college-age youth do not even wear watches, as they have no sense of time. The "counterculture" which their parents adopted in the 1960's, and which has become the dominant culture of present-day America and Europe, has eliminated Classical culture, robbing youth of a sense of history, of science and technological progress.

When confronted with the moral and intellectual

challenge represented by LaRouche, and by his uncanny ability to forecast economic and political developments, they respond with shock and fascination, and a desire to learn how he was able to do so. For example, LaRouche's warning on Nov. 3, 2000, that the Presidential elections would not be decided on Election Day; and his January 2000 published insistence that the omnipotent Enron, then ripping up California, had to collapse; proved to many youth that LaRouche uniquely "knows what he is talking about."

'Think Big!'

Some 15-20 of the youth movement's organizers told the story from their own vantage point during the Sept. 1 evening plenary session of the conference. A young man from Los Angeles, who has been organizing for LaRouche since late 2001, recalled his first contact with LaRouche, as "phenomenal, unbelievable," but that he then thought: "If what he is saying is true, what does that require of me?" A college girl whose father had told her that life was without purpose, related her awareness during her first attendance at a Schiller Institute cadre school, that it was a "profound moment. . . . Finally I found people who would discuss philosophy, who were doing something." Others emphasized their sense of the enormous responsibility they had taken on, by joining LaRouche's movement at such a time of breakdown crisis.

Several said they had thought at first, that it would be "easy" to recruit their friends and contemporaries to the movement, but soon found otherwise. A student leader from California reported his confrontation with other students during a campus demonstration, who were deriding the speakers with the deep pessimism common to so many students, saying, "Anyone who thinks he can do something to change the world is a fool." But this leader emphasized to the conference, "Think big! Maybe I'll be called upon to go to Congo-Zaire, or to Brazil, to help implement LaRouche's policies. That's what this youth movement is for—to implement the new monetary system, and avoid a Dark Age."

LaRouche, along with his wife, Schiller Institute founder Helga Zepp LaRouche, met separately with the 200-plus members of the Youth Movement attending the conference, during which time they had the opportunity to address questions to him directly. This meeting, along with questions and answers from both the conference keynote session, and LaRouche's Sept. 11, 2002 international Internet webcast, are presented below. The Youth Movement meeting was moderated by Harley Schlanger, Presidential candidate LaRouche's Western states' spokesman. **Moderator:** What we're going to do for the next approximately hour and forty-five minutes, is have a discussion on the initiative Lyn took approximately two weeks ago in Los Angeles, where he simultaneously launched the international revolutionary youth movement, along with the national emergency infrastructure program. And so, I'm sure people have read about this and had some questions, and have had a lot of questions come up over the conference. What we'd like to do, is have maximum amount of time for questions and answers. Lyn, do you want to open with anything?

Lyndon LaRouche: Well, the point is, what I've said, is

what I've said. I understand what a real youth movement is. I think I've indicated some understanding of that. And it has to be, in a sense, it has to be independent-it cannot function just simply as an auxiliary of what we otherwise are doing. It has to function in a certain independent, but responsible, way, and I've got to teach the old folks, who've forgotten what it's like, as they go along, some of the rules that they have to live by in dealing with a youth movement. Because, it does have special requirements, as I think many of you appreciate. And I think you already appreciate that the old folks really don't understand, and they need some guidance. So, I'm going to have to give a lot of guidance. [Applause]

As I've said, the difference is, you come from a no-future generation, and most of you know it. There is no future staring at you out there. So, therefore, you're going to have to

fight to get a future. And, to get the future, you're going to have to force a lot of old fogies, between 35 and 45 and somewhat higher, prematurely senile—get them out of their torpor, and get them moving, got to shake them up. In a sense, that's what's going to make it work. That to actually move to victory—nice sound, *victory*—to move to that, you actually can not move to victory as a youth movement. You can move a nation to victory.

You see, normally, you know, before you were born, we used to have families. And, grandparents used to care about grandchildren, as well as their own children, and they would look at the grandchildren as their future. Not as something they possessed, but, their future. They're going to say, the benefit of what they're doing, is going to be shown in this generation. Now, you have a generation, in which Baby Boomers are trying to kill off their parents as soon as possible, for financial reasons. And, Baby Boomers don't know why they had babies. They really don't know. Maybe it was an accident. Maybe somebody didn't give them a sex education, they didn't know how this happened, or whatever. But, they found these children, and they said, "We now have a *possession*, a child. This is our *possession*. But, we don't want to be bothered too much by it. We don't want it to get in the way, to spoil our life." And, as they became more Baby Boomerish, they became more and more selfish, "Oh, what do we have these children for?... They're going to do what we



Youth Movement meeting at Labor Day conference, Sept. 1, 2002. On the dais with Lyndon LaRouche are I.C.L.C. leaders Harley Schlanger (left) and Phil Rubinstein (right).

want them to do, right?- They're our possessions."

It's like an automobile. You got an automobile? It's the one you have, you can't afford to buy a replacement? You're going to have to make that automobile *do* what you want it to do. [Laughter]

And, they look at you, and they say, "You know, you're a disappointment to me." And they say, "I know what you're thinking, you're thinking, *I'm* a disappointment to *you*."

So, it's a little more difficult than it used to be. But, the principle is still the same. You are their future. You're the future of your grandparents, you're the future of your parents. The justification of their existence. In actuality. And, what you're going to do by being what you are, you're going to organize them. Or, that generation. Maybe not *your* parents—you get somebody else to do *your* parents [laughter]—and then, you do somebody else's parents. But, the theme is the same.

The way this is going to work is, you've got a dead population, morally dead. The Baby Boomer generation are walking corpses. They're not quite dead, so you can't bury them, they're still walking around. It's not like Dracula, they're going to fly at night, whatever. So, you've got to get them back to life, you've got to get them moving, and you've got to sort of shame them into it. And make them happy, at being shamed into it.



Youth Movement meeting at Labor Day conference. At the mike: Quincy O'Neill, Karon Long, Anna Shavin.

You know what it is, you get four or five of you on a sidewalk, or an area. The sucker's coming along. This sucker thinks he's going to walk by us. [laughter] We're going to have, number one, who's going to confront him. He's going to be independent as hell, he's going to think he's got the thing mastered. The next one, is going to hit him, and charge him for committing fraud in his response to the first challenge. Then you're going to hit again; you're going to hit again. By that time, the last person in line has got this guy really psyched out, they know exactly where he's coming from, they know exactly what to say, that will set him off. He's going to say, "Okay, I give up. What do you want?"

And, that's the way it's done. There's more to it than that, of course. You've got to have the right ideas, you've got to have the right approach, you've got to have the right analysis. And, you've got to know things you don't already know. You'll have to find out fast. So, you have a lot of discussion. And, you're young, you've got the energy—do it! You can do all those things, all at the same time.

That's it. Go ahead, let's see what you have to say.

Moderator: What we should do is, form a line at the mike. I guess we're going to start with Quincy. **LaRouche:** That's been pre-decided!

Moderator: Why don't you give your name, and also the region you're from.

Quincy: Quincy O'Neill, Los Angeles field. Good to see you again, Lyn. One of the things I've been thinking about-I have a couple of questions- The language has been damaged, we've been damaged, the culture and the education has damaged the language itself, to where even those of us who have expanded vocabulary dumb ourselves down. And, we're just accustomed to dumbing ourselves down, not using it. What would be our approach to remedy this situation, to not only change it, get it back to where we can communicate ideas, but improve it? And what role do the poets play in that?

And then, also, how are we going to overhaul the population? That is, I see a lot of people who can't do much of anything, and besides putting them back to work, is the plan that they all become engineers? Or, is there going to be some kind of work and school

program? What is it going to be?

LaRouche: That, we'll figure out as we go along, the last thing. That's easy. Because, that's simply, you're going to find something for them. That's simple, you're not going to let people rot. But, the first one is much more challenging, on the question of culture and language. Dumbing down, that's the crux. Now, the problem here is, that you guys are victims in large degree, greater or lesser, of the so-called counterculture. This started a long time ago, it started with things like the *New York Times* style book. If you don't have the impulse to put commas and other marks of punctuation, in a way the *New York Times* says is illicit, or wrong, then, you really don't know how to think, or are crippled in your ability to think. Why? Because, ideas are ironies. They're based on the fact, that what you perceive with your senses, is not real. That what you perceive with your senses, is a paradox. And, what you have to do, is interpret that paradox, and solve that paradox, to find out what is the reality that makes clear to you why the paradox exists, what the conflict is in what you perceive. To understand what the idea is, or the principle behind it.

Now, this is the characteristic feature of Classical poetry, and also is the characteristic feature of well-composed, contrapuntal composition. Like fugues, it's what they're based on. So, what you've been deprived of, in language— it's the idea, that communication is literal, or expresses blind emotion, in other words, blind feeling. "I *f-e-e-l* this! Or, get your hands off me!"

So, the idea is, if you don't have Classical poetry, if you don't have understanding of Classical musical composition—not listening *at* it, but understanding what's going on, and trying to find a performer who knows how to do it—you're deprived. If you don't have a sense of Classical drama—and I mean Classical, because it's always based on ideas, paradoxes, solutions to paradoxes—then you don't know how to use language. You want to be able to use a language—and you know this already by instinct, on the streets, in dealing with this crowd you run into on the streets—

How to use a language? You want to convey an idea. How do you convey an idea to a person? You give them a literal, simple declarative sentence? No, you'll never convey an idea with a simple declarative sentence. You have to have an irony. "You know, you think I'm stupid, but, do you know what I'm thinking about you?" [Laughter] And, between "stupid," and "but," there should be a comma. Not because somebody made a rule there should be a comma, but that, if you're going to express this, "You think I'm stupid, *but*"—so, a comma between "stupid," and "but." It's simple, isn't it?

Now, also, if you want to convey an idea, you also have certain rhythmic and musical qualities, called prosody of speech, which are very valuable to get ideas across. You know, you have people who get on television, they're called announcers, or something, and they speak in telex. Or they complicate it with uptalk. "I'm going to the store, but yesterday *I didn't*" [imitates rising intonation of uptalk] [Laughter]. End of sentence. How would you know if it was the end of a sentence, if they didn't put an uptalk into it? So, these are the kinds of things that go on.

Also, Classical poetry, different kinds of meter. Study Shakespeare and other English Classical poets. Study Keats, and Shelley. Keats is one of the best. Now, see what they do. Understand meter. How do you create an effective irony with meter? You take one meter, you say one line in one meter, and the next line in a contrary meter. Use these kinds of tricks of prosody. Now, you have a speaking apparatus. The speaking apparatus is a musical instrument. Think about it. You all have, if you go through the right vocal exercises, to find out what is your natural voice, which has to be trained, but there's a certain natural convergence of your voice, and the bel canto Florentine method of voice training is the way to discover this.

They used to have, in Germany and elsewhere, they used to have, for speaking, they would use this method, the same method you use for singing, for speaking. It's all very important. And then you would find that the voice has certain register shifts, techniques of coloration, and so forth, so that you actually, if you pose in one meter, with one vocalization, and then you repeat the exact same line, with a different coloration, you get an irony, a contrast, an effect. You change the meter, repeat the same idea, in a different meter.

So, what you're doing in each of these cases, as the great poets do, the great writers do, in each case,— what you're doing is, you're creating a paradox. You're getting the attention of the mind of the person to whom you're speaking, not just *at*—you're not saying *at*: "I'm telling you only facts." Well, there are no facts, buddy. There's truth, there's no facts. So, that's the trick in this thing.

So, what you have to do is recognize, that the educational culture, and the popular culture, over the past 30 years, and longer—it actually started earlier, but it became popularized in the middle of the 1960's—the culture to which you've been subjected all your life in school and so forth, is rubbish. It's actually a systemic, systematic destruction of natural mental capabilities associated with communication and use of language. The point is, to just exercise some of this stuff, learn some of it, come to know some of it.

Some of it's going to be elementary, it's something you can learn in the sense that you would learn to play something—it's play, a form of play. Once you begin to understand it, become familiar with it, then you know how it works. Then you find that people who can speak in that Classical way, are more convincing, than those who can't, because the idea that they're trying to express is more easily apprehended by the hearer, even if the hearer is illiterate. Illiterate people are not stupid people. Illiterate people may be damaged in their ability to hear, but they're not stupid, they're still human, and when you start talking about ideas, particular ideas that are close to home *for them*, they will recognize that your way of speaking is a better way of saying things, than they would use normally. You convince them, you win them over. No big deal. It's just a natural process of having fun. You see, learning to do tricks with language, tricks which result in your ability to more truthfully convey ideas, is not trickery. It's understanding the principles of how to use a language in order to efficiently convey ideas to other people.

Most people run around in life today without ideas. They don't have ideas. Look at the television, look at the people who speak in telex. They could almost stop at any point in the sentence, it wouldn't make much difference. They could add five more words at the end, it wouldn't make much difference. They're just telexing, they're like mechanical machines.

So that, the important thing, is this thing of Classical



San Pedro cadre school, chaired by Harley Schlanger and Phil Rubinstein.

culture, on the first part of the question, is the most important. Get an exposure to Classical culture, and look at things like poetry, particularly great poetry, and look at some great drama. And always look at it for the fact, that ideas are communicated, not as perceptual experiences, not as a visual, auditory, auditing of the stage, of what's going on on the stage. You do not get much worthwhile until the drama is enacted on the stage of your own imagination. That's when you get ideas. And you have to look at things in that way: How do you convey ideas?

For example, look at the question of motivation. The thing you often run into. Motivation. People are saying something. The question in your mind is, Why are they saying it? Why are they saying *that*? Now, you can't *perceive* why they are saying that, can you? It's not a matter

of taking the words out and dissecting the words, interpreting the words. You have two things to go by. You know the society in which you are operating; you know, essentially, what this kind of statement corresponds to in that society. But, you really, are hearing what they're saying, as if on a stage, and you're saying, What is *behind* that? You're listening to the inner ear. You're trying to hear what is behind what they are saying. And when you're relaxed, and alert, you find it pops into your mind, and you often will make a quip to the guy, in response, which is precisely accurate. The guy goes, "w-r-r-r-r-," if you call him he's going to groan. "I guess you lost a lot of money in the stock market, hmm?" And, you probably hit it right on the button, right away. It's hearing with the

inner ear.

This is what's lacking in terms of culture, this ability to think cognitively. To hear things, perform whatever you hear on the stage of the imagination, take into account the society as the background in which this is occurring. Like, when you take Shakespeare's Henry V. Where should you place Shakespeare's Henry V? Well, Shakespeare had a lot of knowledge about English history, which he got especially from Sir Thomas More, because his father had done a thorough study, and More wrote a report on it. So, when he did the English history plays, he was speaking from some knowledge. So, he's speaking about England, in the middle of the Fifteenth Century, Henry V.

So, now you've got to have in the imagination, a sense of England and

France in that middle of the century, in those times, with that particular royal house, and so forth, what was going on there before then. You get that, then you hear what the character is saying. But, you try, as Shakespeare instructs you, with Chorus at the opening of the drama: Do not try to visualize the events onstage with your eyes and ears alone. The horses you will never see, we're not actually bringing the horses physically on stage. But they're there. See them in the imagination. And what's lacking in the culture is the ability to have an intelligent comprehension of the powers of imagination. Because all the important things that happen to human beings, happen in their imagination.

Ed: Mr. LaRouche, my name is Ed Park, from the Los Angeles office. I've been organizing since May, and I'd

like to thank you for the opportunity of feeling, knowing what it is to be human, and knowing that as a personal discovery. My question is, regarding the human soul: In my organizing I've met all types of people, and it's been a rewarding experience, my understanding of human nature has greatly grown and developed. Many people I've met in my organizing claim to be religious, and some even devoutly so; however, many of these same people are not political. They don't work to change people's minds, to organize others towards mutual benefit, towards the betterment of all humankind. From my perspective, and my understanding of what the soul is, if these people aren't working in the service of good, their soul is of a clearly inferior quality. Yet, they cite Scrip-

ture, and claim that their piety will somehow be rewarded. What do I say to these people, to snap them out of their insane fantasy? Can I tell these people that they're going to hell? [Laughter]

LaRouche: The smart answer would be, they're probably already there. And then, if you told them they were going to hell, they'd be angry. If you told them they were already living there, they'd say, "How did you know?" The question of immortality, this is a very crucial thing, which is dealt with by Plato, especially, famously, and dealt with brilliantly, as a reprise of Plato, by Moses Mendelssohn. My view of the thing— I'm more pleased with my view, than either Plato's or Moses Mendelssohn's, because I know it myself, you see. That's probably the

big advantage, if you know something yourself, rather than knowing what somebody's told you, tried to replicate what they thought. It's sometimes easier.

If you can create a discovery, and you not only create a discovery which enabled you to improve man's mastery of the universe, but you know that the transmission of such discoveries from one generation to the next, as an experience of discovery, is what enables the human race to progress, and the lack of such discoveries, or denial of such discoveries, is what causes the human race to fail; then you have a sense that, living in your space and your time, and acting creatively, is an immortal act. Because, if you take mankind as a whole, the universality of mankind is man's development. If you are contributing to the development of the human species, you are reaching back to justify those who came before you, because you are an outcome of them. And by improving the outcome of their life, of which you are a part, you are making their life more meaningful.

If they were slaves, and you are free, and you do something which is un-slave-like, you free them from slavery. Not in the flesh, but in the meaning of their lives. So you can now change the meaning of the lives of people who went before you, by doing good deeds that give their lives a better meaning, a better outcome, than they were able to enjoy while they were alive.

So, this gives you a sense of what immortality is. It's being a part of a universality, which is immediately the human species. You are working to make the human species better. Anything you contribute to the human



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species, is forever—past and future. Therefore, you have a sense of immortality.

Now, therefore, what's your religion become, your religious practice? "Now, I've got to deal with the old guy under the floorboard, he's gonna make me rich. And if he doesn't make me rich, he's gonna take me after I die, he's gonna take me to this wonderful place, where I'll get everything I've ever wanted, ice-cream cones, everything else." Rather than saying, I'm going to give you joy, in being yourself, in being alive, because your struggle is something that's going to give meaning to the lives of people who went before you, and give greater possibilities to those who come after you. And, you're going to be happy, to be yourself. I'm going to redeem you. As Christ said, "I'm going to *redeem* you." I'm not going to buy you toys, I'm not going to put you in Paradise, where you can have all the sex you want, (which is what, I think, some of these guys really are going for). I'm going to do something simple, I'm going to redeem you. I'm going to take you from a situation where you have to be ashamed of yourself, to a process of which you need not be ashamed. I'm going to give you back yourself, I'm going to give you a sense of immortality." And it's real, because the good you do *will* survive.

But we can persuade people to continue the good that you do, after you're gone. Therefore, we have to socialize that process of getting people to do good, which is a matter of being good. What happens is this. You've had these strange religions, which are anti-Christian religions to a degree, and many of these Protestant and other cults are anti-Christian religions, in fact, they originated as that. They were based on ancient cults, pagan cults. And typical was the Manichaeans. Typical were the Cathars, who were the most influential in modern Europe in this respect. Calvinists-Calvin came from this. Calvin was not a Christian, he was a Cathar. The city of Geneva, at the headwaters of the Rhône, was the center of some wealthy Cathars, the "Elect," who controlled the Cathar culture along the Rhône. And their doctrine was, they would not have sex after a certain point in life-they would not have human sex, that is. They are the ones who invented the condom. The city in France, in the other area of Cathar settlements, is a city called Condom.

Now, the city is an area where you have sheep, and the largest ducks outside of China in all creation. These ducks are about the size of sheep. We're driving through the area, I looked out the car window. These monsters out there ... "They're sheep?" "No, they're ducks!" And then, of course, this is adjoining the Armagnac district, and I was also acquainted with all the varieties of Armagnac on that particular occasion by an expert on the subject, the place is La Belle Gasconne and she was this woman who is one of the most famous chefs in all France. She had been invited to become the chef for the Elysee under Giscard d'Estaing, and she turned it down. And she ran a small restaurant, with about six tables in it, and her husband was the maître d'. And one time, we ate there, and stayed in an old mill, which had been rehabilitated across the street. I went in there-just to give it the background-went in there, Helga and I were there, and she can attest to what she saw, we got in there for a meal at seven o'clock, and we left at about eleven-thirty. And, you couldn't duck that meal, because that meal was ducking you! Every aspect of a duck was being paraded before you in various cooked forms, and at the end of this repast, the maître d', the husband, came over to me, knowing that I was the guest of honor, or so, of that particular troupe, and came up with a tray, with three glasses of different colors of Armagnac. [whispers] I passed the test. But, in this area, which used to be populated largely by—Helga was witness to this whole incident...

Helga Zepp LaRouche: ... they stuff these poor geese, so that the paté becomes better, I mean, it's awful...

LaRouche: ... Anyway, this is the area of the famous crusade, the Albigensian Crusade was conducted in that area, and the Albigensian Crusade was against the Cathars of that particular region outside Bordeaux and outside Albi, in particular. So, in this area, Condom, the Cathar elders believed that they could not have sex which would cause the reproduction of a human being, after they'd become "Elect." And therefore, they could do any-thing they wanted to, to get pleasure, but it couldn't be carnal sex between man and woman, for the purposes of procreation. Anything, but procreation, was allowed. And this was pretty much what they did.

So, in this area, which is a sheep area, they took the intestines of sheep, and sewed them into what became known as condoms. So, anyway, that's where this thing started. Now, the popularity of the condom, tells you something about the Cathars, that they really somehow managed to increase their numbers without actually *reproducing* them. [Laughter] It was not a safe sex program, it was an insane sex program!

So, anyway, this religious belief of the Cathars, who were a kind of neo-Manichaean cult, spread in France, and became part of Calvinism, especially after the initial Huguenots were slaughtered, and so the Calvinists moved in, to take over the area, as the replacements for the Huguenots. And it also spread into England. Quesnay, for example, the physiocrats, were Cathars. The Calvinists of Geneva were largely Cathars. Calvin was a Cathar. Mandeville was a Cathar. Adam Smith, doctrine, is that of the Cathars. John Locke, doctrine, Cathar. Jonathan Edwards, in the United States, the Great Awakening, Cathar. Doctrine. What is the doctrine? The doctrine is, you're a no-good. You're not worth anything. It doesn't mean what you do,- if God, in his stupidity and blindness, chooses to love you, and adopt you, everything will be done for you.

Now, who's God? Well, God is a little guy, who lives under the floorboards of the Universe, and when the dice are thrown, he fixes the dice, so that you'll become rich and the other guy gets poor. That is the kind of religion you're talking about! The religion—"if you do this, if you join this organization and say these magic words, and go through this ritual, you're going to be taken care
of. Not in this life—maybe in this life, maybe we'll have the Battle of Armageddon and you won't have to pay the rent that month." Or something like that.

So, it's that kind of— stupid people, who are faced with anxiety, who feel their lives are worthless, and want to feel important, and somebody comes along and says, if you believe this, if you believe it *hard enough*, if you get down on your knees and *really believe it*, you will imagine what's going to happen—and that's what you want. It's a form of mass entertainment of this pernicious type.

My view on the matter, in dealing with people like that, don't bother arguing with them, with their silly nonsense. Tell 'em the truth. "Oh, yes, immortality is great-I already have it." Because we're doing that, I mean, actually it's what we're doing. We've got people that are dying all over the world, we have people that are going to die in wars, people that die of diseases, people are dying of lack of health care, people are dying of hunger. People are dying all over the place. We have a responsibility to do, what? We're not going to be able to stop them from dying; we can delay the dying, we can keep people alive, we can minimize the suffering by various means, but in the end they're going to die. Everybody dies. So, you've got to find-don't wait until after vou're dead, to find out if it worked out! Get a hold on it now! What's the hold on it now? It's to know, that you have, immortality. Real immortality. Human immortality. Not some deal sold to you by an out-ofwork used car salesman.

Moderator: Next up is Karon Long.

Karon: Hi, Karon from D.C. Actually, I've been trying to think, during this whole conference, how to ask the question I've been thinking about for the last couple weeks. I've been doing some work on, well, copying the drawings of Rembrandt-one of which I was going to present to you for your birthday, but I'm a little intimidated about doing it, because I ran into a problem where, in the composition of the angel, Abraham, and Isaac (not the painting, the drawing),— and the question came in my mind, as I'm drawing it, "Who came first?" Right? You've got the angel reaching down, holding onto Abraham's hand. Why is he holding onto Abraham's hand? Well, because Issac's there (he's getting ready to slaughter Isaac). Okay. Well, why is Isaac there? Well, because Abraham is getting ready to slaughter him, to prove his devotion to God, right? Well, that's just why Abraham's there. So, you have this complete composition, at once, so Rembrandt, I mean, it's so amazing, because he has the entire idea first, before he composes, before he actually constructs the painting, or the drawing, or whatever it is ...

LaRouche: Right ...

Karon: ... Now, when I was out organizing at American University, I had an older, Baby Boomer jerk, who came up, and he says, "Who's LaRouche?" And he already knows who LaRouche is, right, they do this: "Who's LaRouche?" So, I'm telling him; I say, "He's the guy who initiated the SDI, he's the one who created it, he was the leader of this fight." And he says, "No, no, no, no, come on, LaRouche isn't a physicist, he doesn't know this stuff. It was Teller." And he starts rattling off all these scientific names. And, I was thinking, this guy actually doesn't know what he's talking about, in the sense, I mean, I know Teller and these guys were involved, but, how can you have an actual scientific movement to construct something, unless there was an *idea*, behind which to construct it? And, I'm having trouble trying to figure out how to ask that question, so . . .

LaRouche: ... Well, you're dealing with fakery, in that case. The guy's a faker. He's not saying, "What are you saying?" He's not challenging you, he's not discussing the idea, "What do you mean? What's your basis for saying that?"-which is not too difficult to identify, hmm? And also, the denunciation of me, internationally, by all the people who denounce me on that question; he pretends that it didn't happen. He doesn't know. See, he just doesn't know. And, like many professors, these days, in universities, he gets by, by lying. Because he's passing out the grades. He's lying. I don't know how much you've been exposed to people who are actually competent-in my time, the competent people were a rather limited number, in academic life. But there were a few! Today, I think it's rare, if you find one at a university, among the whole faculty. They're all fakers. It's a real problem.

You're right about this idea: You don't have any composition in art or science, without a preceding intention. And the case of Kepler's description of the way he developed the concept of gravitation, is exemplary of that. And he emphasized this clearly, the question of *intention*: that a universal physical principle expresses itself as a discoverable intention. In other words, there's an anomaly where the system as described does not account for what's going on it. And therefore, there must be something which is causing the effect, which all known factors would not account for. Therefore, you have to say, there has to be some intention, outside the given assumptions, which is causing this effect, and I must discover what that is. So, this is why the business of irony and anomalies-the whole business of life, of thought, is irony, anomalies.

Now, take the case of the other Rembrandt, the

famous "Aristotle Contemplating the Bust of Homer." Actually, Homer is contemplating the blindness of Aristotle! And it's clear. Of course, that was the intention of Rembrandt. Now, why would Rembrandt want to ridicule Aristotle with Homer? Because Homer was Classical, and Aristotle was not. Aristotle epitomized the Roman legacy, the Romantic legacy. Rembrandt, Homer represented the Classical Greek legacy. That's what the issue was. And you have this idea, the *insight*, what blind Homer is showing,— the way it's handled, it's handled in a Classical way, in the painting, just as in sculpture, the motion, the intention. Which is shown by the attitude of Homer looking at this appalling creature, Aristotle, this



Youth chorus, San Pedro cadre school.

pompous, appalling creature Aristotle, conveys immediately the whole image. And you have someone who has read Homer, and loved it, and someone who has dealt with the horrible, pompous ass, Aristotle—obviously, the intention is there.

You take the question of the Raphael "School of Athens." Or, the Raphael "Transfiguration," which is a similar kind of thing, all the same. The intention is the point, is to grasp; and you don't accomplish anything in life, in composition or great work, without an intention. The result you get, you intended to achieve before you started. You may get a somewhat different result than you intended; without the original intention, you would never have gotten to the result.

Anna: Hi, my name is Anna Shavin, I'm from Los Angeles, I'm in the field. You've been actually addressing

it a lot, but I want to ask you a question about Classical composition. You say in a lot of your papers, it's a Classical idea, and it comes from Plato, in his dialogues, and you can find it in art, in science, and then, in music as well, you can express it through musical notes, you know, singing, or instrumental. And then, you also throw in this kind of relationship between the Classical idea, Leibniz's *monad*, and then, the LaRouche thought-object. So, I wanted you to elaborate more on that.

LaRouche: This is why I picked this thing, which I was provoked to do especially because of Bill Warfield's illness when he was here, he had this illness during the

> course of time of the last conference. and I knew he loved this because of a passing remark he had back in 1994, on the Brahms "Ernste Gesänge," which is very important to me, for reasons I've given. Which is, first of all: It does represent a very clear idea. It is, in a sense, the last will and testament, musically, of Brahms. It's what it says, it's life and death, the meaning of life and death, the meaning of these things. This is what it is. It's a very moving thing. And Brahms, in this period, particularly after he went through this intensive work on the Fourth Symphony, extremely intensive work, comparable in its workmanship to Beethoven's Seventh Symphony, which has a similar kind of structure to it, the same idea of how to compose, as opposed— a different symphonic form, a new symphonic form. So, Brahms responded to the Seventh Symphony of

Beethoven, with his Fourth Symphony, taking this transitional period from the third movement of the "Hammerklavier Sonata," measure 170 or something like that, that area, where this goes into a keyless progression of modalities, into a resolution. And Brahms takes this keyless transition, right out of Beethoven. [tape break] To me, that's the epitome.

Now, he applies the same kind of thing, to the "Vier Ernste Gesänge" ["Four Serious Songs"].You look at the fourth one. You take the third, with the "O Tod," which is a marvelously powerful piece, but, in a sense, it has a certain simplicity to it—the one transition, a beautiful thing. But then, the fourth song, the complexity of the counterpoint, the modalities in this fourth song, and what it implies in delivering it, as an idea, as I've emphasized this one thing that Fischer-Dieskau did. I know he had to have had that idea. I never talked to him about it, but, there are indications. He had this session with Furtwängler, where they sat up all night, while Furtwängler was coaching young Fischer-Dieskau, in this "Four Serious Songs." And they spent the evening—all the other distinguished guests were sitting there waiting. Furtwängler wanted to work with this young singer, who had this marvelous voice, this beautiful *bel canto* capability.

And, what he did, it's a very slight thing, a sense of timing, because you come to what is a quarter-note rest, just before the end. Now, you are actually having a note change, also a key change, key shift, which are coming in across the rest; it's like a turn, a musical turn, is occurring

there. And, it's a difference in coloration, and there also has to be— I think that Gertrude Pitzinger lingers too long over the rest; admittedly it's a retard just at that point, but she lingers a little bit too long over the rest. Whereas, Fisher-Dieskau comes in on it, crowds in on the rest, and he keeps his voice, real *bel canto* method, of changing the coloration of his voice, in passing through this thing, but it's so phrased, the irony is, that this change has occurred, as if it was no change, as if the idea, "habe die Liebe," is come right out of that, that beforehand.

So, this addresses everything in Brahms' idea, and addresses everything really that Paul is saying in 1 Corinthians 13, as well. But, it's a magnificent thing. So, I took this case, because the intention is so clear, shall we say, the moral of the story is so obvious,

that you can now look at this, knowing this, and realizing this, you look back at the composition, and you can see how the music as such, or the musical theory, does not determine what you do; it's the *idea*, which determines it, but you find the way to make the music, do it for you. Now, you must produce the way the intention is implied in that composition.

That, to me, is the kind of case study that people have to get; is to see, in what they take as ordinary art, ordinary poetry, ordinary experiences, what they take for granted, as something you can repeat at the classroom blackboard, and say, "in other words, what you mean to say." There is no "in other words," in art. You mean to say it, and that will determine exactly *how* you say it. Every fraud usually starts, "Well, in other words, what you're trying to say, Mr. L. . . . , is" You know he's a faker, immediately, the guy is bulling his way out of it. And so, this aspect of the matter is what is crucial for me, in creativity. Creativity lies, as Furtwängler said, "between the notes." But, people don't know what "between the notes" means. Therefore, they confuse the interpretation of the phrase. So, I've often used this particular example, of this transition, the way Fischer-Dieskau treats it, as an example, of exactly how to get this conception of "between the notes." There are many other examples. It always struck me, since I first heard Furtwängler's performances in 1946, it always struck me, this unique approach, which most people seem to miss, but to me is so obvious, it would knock me off my chair, so to



Open rehearsal of Friedrich Schiller's drama "Wilhelm Tell," San Pedro cadre school.

speak, every time. You had this sense, you really had this experience. That's what you've got to get across in all politics, as well as art as such.

And, you know my view, you've been exposed to enough about me to know it— my view is that, through my experience, and I did a lot on this over the years, over, what is it now?—I hate to tell you, how many years say, since about 1946, '47, on this question, about art and science. That Classical artistic composition, when understood from this standpoint, is a branch of physical science. Because it produces a physical effect, appropriate to the human cognitive processes, which results in changing the way the world behaves. And, Classical artistic composition is a method by which we educate ourselves, educate our powers, to do what is otherwise called, scientific and other creative work, the explicit creative work. Some think it's only "art," they think of art as entertainment. Art is not entertainment. It is fascinating, it is absorbing, it is beautiful, it is consuming, but it's not just entertainment. It's not just another form of entertainment, it's not what the lady on the street is offering. Art is actually a rehearsal, in concentrated expression, of those powers of thinking and communication, by which we impart our most profound and important conceptions to other people. And, by practicing artistic composition, and its utilization, we are rehearsing and enriching, our ability to reach people efficiently on ideas, in every aspect of life. And that's why it is so beautiful. Not because it's beautiful in form. Because it's beautiful in its effect. It ennobles us, it makes us more powerful in our ability to communicate with people.

Moderator: Of the people on the list, who would like to ask a question for Helga? Michael?

Michael: Hi ...

Helga Zepp LaRouche: Hi ...

Michael: My name is Michael. I'm from the Seattle field, and I have a question for you, actually, concerning your opening address this morning. You were discussing the question of, this Iraq issue. That, the world as a whole right now, we're sitting on a powder-keg that's about to blow. And, one of the things you said, was that, for us to stop this war, will actually be easy. And when you said that, it kind of shook me up a little bit. I wasn't in that state of mind, that it will actually be an easy thing. So, my question is, and this also concerns something LaRouche addresses often in his papers: Along the lines of the least action principle, what, how may all of us in this room right now, leaving with the same intention to do that, that same thing, to stop what's about to blow up underneath us; how may we, with ease, as you said, - I'm wondering about what you were thinking about that, how may we with ease stop this catastrophe?

Helga Zepp LaRouche: Well, maybe my English is not so good; I actually didn't mean it was that easy to stop the war. What I meant to say, maybe I expressed myself not clearly, was, that it would be very easy, and is very easy, to remove the cause for the war, which is the financial blow-out. And, I think these two things have to be always discussed together, because, you know, in a certain sense, if the whole world is for peace, and the United States government is for war, I'm afraid the war will happen. Because, simply, when I read this morning, this Armitage quote,— you know, almost as if you wanted to put the final proof about the imperial thesis,— I mean, this is just insane, to say, "we are the most powerful country in the whole history of all nations ever, and that's why people envy us." I mean, this guy is out of this world.

The whole world is either terrified, or they really are looking down on the United States as something really degenerated, or they even hate it. And you can be sure that a lot of Arabs hate the United States passionately by now. There are a lot of people who think the United States is the "Empire of Evil." So, in a certain sense, it is very important to mobilize against the war, and I think, you have to create a storm on the campuses.

Look, the U.S. Army just put out about, I think, one or two months ago, a video game, appealing to video addicts— you have all these million peoples of who play hours and hours of video games on the internet, or else in video dens. Since 1972, the Surgeon General and the American Psychiatric Society, and many other institutions, have put out reports which said, that it's without any doubt, that there is a connection between media violence and youth violence; and that only referred to Hollywood movies, cult movies of various kinds. In the meantime, the same thing has been a hundred times established for video games.

When the Erfurt killing occurred in Germany, where a young man killed 16 teachers, and then himself, I did an interview with Dave Grossman, who is an expert, because he trained a lot of soldiers, he trained the F.B.I., he trained Special Forces, on how to reduce the resistance against killing. And I asked him, "How comes it that, you know, that nobody noticed that this guy was preparing this for one full year? Because it was not an amok thing, but he had really calculated it in absolute detail." So, Grossman said, "Well, you wouldn't notice, because millions of youth around the world are doing exactly the same thing, and it's being regarded as completely normal." So, then, the U.S. Army is now appealing to these young addicts. You have to understand that. When I understood it, it really blew my mind; because these institutions, Hollywood and so forth, know that video violence is turning kids into potential killers. And they are not doing anything about it. And Lieberman is one of the people who blocked any effective control of these video games.

And then, the United States intends to go to imperial wars, so what do they do? They turn to their addicts, their youth addicts, and say, "You are welcome cannon fodder to fight these imperial wars." And the video of the Army actually says, "Well, you like video games. Now join the real thing, go into the real war." I realized that the reason why they have not done anything about it, is because they want to have tons of young people being deliberate cannon fodder for these wars. Look at what's happening in Afghanistan. Don't think it's such a fun thing, I mean, it's a Vietnam thing which is developing. If the United States goes with ground troops into Iraq, well, I can assure you, that the Iraqi population will fight to the last person. Because there is no way they will quit. They may not like Saddam Hussein (even so, there's no sign that there's a serious opposition in Iraq at all), but they hate the United States deeply, and for a long time, since 12 years. More than a million children have died as a consequence of the sanctions. No food, no medicine for simple diseases which would easily to be treated, but the sanctions don't allow it, because certain chemical substances could have a dual ished. You know, they expect the U.S. housing bubble to burst next, and that will be the last straw. Or, they expect the insurance bubble to. Basically, everybody agrees, it will happen, the only question is, what will be the trigger. So, therefore, if there would be a powerful discussion, you know, about the need to reconstruct the world financial system, the problem is, the politicians in this country are too stupid. The political culture in this country is so low, it is breathtaking, or scaring—it scares me, it's unbelievable. They have no knowledge, they have no overview, and, therefore, the whole country is run by these Brzezinski think-tank types, because the normal politicians are kept on such low-level issues,

use. So, therefore you have a situation where, I think,and where would these recruits come from? From young people, from campuses and elsewhere. So, I think, we need to really make a point, to create a storm on the campuses, not to have this war. I think this is a very important thing, and you could do, really, a very important job in this, because, I think, that the problem is that the American people are so,- I mean, I know this sounds for you maybe exaggerated, but from my experience and my point of view, the U.S. media is more controlled than the Soviet media under Stalin. Because, under Stalin, you could still have some



Informal discussion with Lyndon LaRouche, Youth Meeting at Labor Day conference.

Classical culture, because for some reason, Stalin liked Classical culture. But you don't get this in CNN, or any one of these Fox-TV, or, you know. I really want to impress on you, that the American population, and that obviously includes youth, and students, and whatnot,— they have no idea what the rest of the world is thinking. So I think, this is the first thing.

Then, the second thing is,— Look, the reason why I said it's relatively easy is, because the majority of world forces are moving in the direction of the world reconstruction program of the Land-Bridge. I cannot tell you every discussion we have, but I can assure you, we had in the last weeks and months, discussions with top, top, top establishment people from Europe, from Asia, and they all agree with Lyn, this system is completely fin-

local issues, issues which have absolutely nothing to do with the real world.

So, I think the more you guys intervene into political events, into conferences, into all kinds of events where you confront these so-called people, you know, with the reality, "This system is about to blow, are you prepared to make a new Bretton Woods? Or, we will have total social chaos in this country. Are you aware that, already, 25% of all American pensioners have to go back to work? Because they lost their pension funds? People thought they had a secure income for the evening of their life, and they realize it's gone." So, I think it *is* very easy, because we are in a truly revolutionary period, and a lot of forces in the whole world are just waiting for something to emerge from inside the United States. **Jean Gabriel:** Hello, Lyn. Hello, Helga. I am Jean Gabriel from France, and we came with a little crew from France here, to bring back home the American Revolution "Number 2," or it might be the same, I don't know. [Applause]

We were having a meeting with Helga and the youth of Europe, and there was a friend of yours, Erin, and Dave, and they told us, "Just do it!" So we are here. My question is, France and Europe, it's like a kind of moon, there is something that is sleeping in that place in the world. And when I look at France, I have the impression that this nation-state is there, with the principles, and the history, as you talk about them very much; but, what is the principle, the psychological aspect of the special kind in France? And second, what a youth movement in France would face, as a special threat? Thank you.

LaRouche: This involves some very sensitive questions. For example, France is, figuratively speaking, the only nation in Europe which has more policemen than people. [laughter] This is a legacy of the first fascist government of France, that of Napoleon Bonaparte, who was a caricature of Louis XIV,— a complete pagan, who established himself as the Pontifex Maximus of the official state religion, who introduced everything that was Caesarian as a model, including the legal code, who used Caesar and the Roman legions as a model for the development of what



Youth Movement organizers, Philadelphia, Pennsylvania, August 2002.

parasite, which is living on France, and maybe on Europe? And, is there a special kind of parasite in France? Because I've noticed in last spring, that there were some events in France, like the burning of the Israel embassy in the center of Paris, without any reaction, or the Richard Durn killing in Nanterre, which was bizarre, because this guy has bizarre credentials, he was in Kosovo, he was in Hamas, he was in Baruch Goldstein's tomb, and he was back in the Ligue des Droits de L'hommes. And during the whole summer, not a word about Iraq or international matters, and they just came out last, in late August, to say, "No war in Iraq without the Security Council." Well, I'm sure that [Foreign Minister] Villepin and [President] Chirac came out of the woods because of you, and the campaign here. So, my question is: What is that kind of parasite? Is it a became the Grand Armée. After Napoleon, France got the Restoration monarchy, which was an abomination, an *evil* abomination. Lafayette was Lafayette, he tried to do some things, but that didn't work too well.

Then you had the orchestration of the 1840's, which established the son of a Napoleon as a monarch, who set up a real fascist regime, and you find the reflections of that in Balzac, who describes exactly that decadence. What happened to France? Morals went out. You had the terrible defeat of 1870-71, which brought in Thieres, which in a sense, got rid of Napoleon III. Napoleon III had failed, because he had lost the Civil War in the United States, which he was a

supporter of, the Confederacy in the Civil War. And, the Napoleonic tendency of the Murat family in particular, was extremely important in building up the Confederacy in the United States, it was an integral part of it. But, then you had the development of this pestilence, in the 1890's, which destroyed Hanotaux, or Hanotaux's effort, after the killing of President Sadi Carnot, you had the unleashing of this combination of legitimists, Bonapartists, and leftists, one worse than the other, which became the instrument of Prince, and then King, Edward VII of England, in organizing the First and Second World Wars.

Now, in my visits to France, in looking at French cemeteries, I saw that the number of people interred in French cemeteries for the First World War, vastly exceeded that of the Second. The destruction of France, and the destruction of the French population, the demoralization of Europe by the First World War, was enormous. Which led to the extreme decadence of the Third Republic. And then you had DeGaulle. Now DeGaulle was a phenomenon, partly influenced by Roosevelt, although he didn't like Roosevelt at the time, because he wanted to keep the French Empire. But, a phenomenon of change, of a man who had a great capability of change. We had, you know, our dear friend, who died some years ago, Revault D'Allonnes, a true patriot, he worked with us, he worked key on the issue of the SDI, along with other people in France, in the military and so forth. This was all good.

But, what happened after I went to prison, France

shut down. It was destroyed. The morality of the French institutions went. Because, what I had been catalytic in, in getting this SDI coalition, in Italy, France, and elsewhere, and the United States, on the question of the SDI, had brought-as the case of Revault D'Allonnes' activity with us is typical, here he was, he was the commander of military forces under DeGaulle, the man who was hunting down the pig Jacques Soustelle (who was a British agent, among his other virtues). These people typified those who were moralized, as in Germany, in Germany it was General Karst, for example, who was probably the key figure in this, who now just recently died. And say to the United States, "We pretend to be anti-American, but we're really doing your dirty work for you." And that's the problem.

Now, it's different— probably in France, Jacques has estimated, that the healthy French elements are outside the political establishment. He's probably right. People who have ideas, who think, they're excluded, they're not wanted, they're sitting outside, they're not really much involved, they're not much active. On the mayors phenomenon, you get among mayors a tendency, a more independent factor, because they're not really part of the Paris national establishment, in the ordinary sense. Unless somebody comes in and hounds them.

In Germany and Italy, it's different. Italy is probably



Youth Movement organizers, Philadelphia, Pennsylvania, August 2002.

this combination, I worked with, in the Americas, elsewhere, in the United States. This was a moralizing factor. And therefore, when I went to prison, this caused a demoralization of all of these circles in the United States and in Europe.

And, this was what there was in France, there was essentially nothing more. There were people who gravitated toward that, science, so forth, but they all disappeared! Virtually all disappeared! So, what's happened is—, you think about what this means historically. It means that the fascist influence in France is on top. And this recent election really makes it clear. The whole thing is staged. The whole thing was staged! An orchestrated, police-state operation. A state decision, to sit like a jackal on the heels of the dying United States, but do everything to enforce the United States' interests in Europe, and to the most moral nation in Europe, and most of the moral people in Italy are friends of ours, or friends of friends of ours. And therefore, we have the greatest influence, in a moral sense, in Italy, where we had resolutions, that we never had from anyone in France, on any of these issues, none. It's shut down. There are no politics in France. It's artificial, it's a stage, a puppet stage, a Grand Guignol. In Germany, it's different. Germany is an occupied nation. It has the habit of being an occupied nation. It's now occupied with consideration of its fate, which is not a pleasant one. In a recent period, we had what might seem from the outside, a miraculous response from Schroeder, to the situation. Saying things on the economy, saying things about the Iraq war, which were for him a change, and for the German institutions a change. There's a revolt going on.

So, I think the Italian and German part are real. I think that the French part is not yet reality. I think that the French reaction to this is opportunistic. France lives as a bloodsucker on Germany. What Mitterrand gained, the agreement that Germany would give blood for the French Dracula—that was his idea, he was a real Dracula. I mean he killed— I met [former Foreign Minister] Bérégovoy, for example—he had him killed! I happen to know that Bérégovoy was the man who was the custodian of the secrets about Mitterrand's sex life. So, I think the problem there, is of that complexity.

Now, what do we do about it? Well, first of all, I imagine it's rather difficult to have a youth movement in France at this time. First of all, because our European



LaRouche Youth Movement rallies in Washington, D.C., September 2002.

organization is, as a whole, not really much up to it. They tend to behave like senile old people, who are trying to control their rebellious grandchildren. But, I'll try to do something about that. Helga's already doing something about that. But, it's tough in Germany—I mean, she's having real trouble trying to get our active members out of their graves, you know? [Laughter] Saying, "Come on, come back, for one more life." But they resist, they say, "We're comfortable down here. The winter's coming on, we want to pull the boards over our head." So, that's the nature of the problem. And what we have to do, the idea of an international youth movement, is the only solution.

We have to understand these problems in various countries, the difficulties, but we also have to say we can

overwhelm them. And the way you overwhelm them is, by outflanking them. So we just function internationally, in a coordinated way, with more discussion. A youth movement means people who are active, as opposed to dead. It means more activity. It means more discussion. It means more issues. It can't say, "Aaaahhh, it's too much for us, too much for us." It's not too much. You know, when you're fighting for life, it's not too much, huh?

So, these are a lot of technical questions, but you know the thrust of what I think about these matters. I've been trying to get an outreach program going in the United States—Helga's been trying to do it in Germany—but I've been trying to do it in the United

> States since 1994. And they won't move! They say, "You've got some youth? Okay, we'll deploy two of them to this site." You idiots! You idiots, that won't work! "Yes, but they have to report to us. They have to turn their cards in. We'll see if the salesmen can get anything out of them." That's all. They're not serious.

> That's the problem you have in the regions. They're not serious about outreach. They say, "We have our business practices. You turn your cards over to the sales team. If the sales team doesn't sell, we burn the cards. We tear them up." Right? That's what they do! Now, not all people do that. But, you want to say, wait a minute, wait a minute, cut this crap out! This is not the way— we are not running a used car business! This is a political organization. Everybody organizes. And people who have, this experience, or this situation, will

organize as best they can, under a general, centralized idea of what the policy is. And the policy can change very rapidly, from day to day, based on the reality. It's like fighting a war, you don't say, "We're stuck with this master war plan, you can't deviate from it." You say, "Okay, the enemy has exposed a flank— ha!-ha!-ha!, we're gonna hit it, now! What we said yesterday, forget it, we're gonna hit this thing today! He sticks his flank out, we're gonna kick it." [Laughter]

That's the order of the day. But, we have to use our judgment, in how we do it. This old, stodgy, mechanistic, by-the-rules, doesn't work. It never worked. And, when I was in prison, some people who wanted to shut the organization down, said, shut down the field squads. Shut down field organizing. Have a sales organization. And the rest of us who are running the place, will go off and make babies. Or, pretend we're making babies. [Laughter] Or, peeking into other people's bedrooms, or whatever. Things like that. So, the thing was *disgusting*.

I couldn't do much about it. I insisted that it be done. I said, we're decayed, we're turning rotten. Cut it out, expand, get loose, get out there and organize! Cut this routine, this business-like used-car-salesman routine. It's like used car salesmen. I went through this, I used to be a consultant, running around dealing with lots of car dealers, automobile dealers. And I can tell you, that what I see is some people trying to run this organization of ours, like a used car dealership! The same kind of thing that I

used to condemn in used car dealers and new car dealers, as idiocy, and immorality- we're doing it! We call it policy. They call it policy, too. But, you're not going to change the world-and the business went bankrupt, the whole used car business went bankrupt, the new car business went bankrupt, in the 1960's, 1957-58. It was reborn, like Dracula, in a new form, but it went bankrupt, essentially, the whole system. And ours would go bankrupt, unless we change. And what people have been doing for the past 10, 11, 12 years, is now about to change. The outreach program is going to be predominant, extreme flexibility, a high propensity for flanking, otherwise called kicking butt. [Applause]

aggressive, imaginative, we're in this war to win, and we kick flank. [Applause]

Helga Zepp LaRouche: I just want to say, that the biggest threat to a youth movement, would be, to assume that what has happened in the last year or two, would be extended into the future. Because, we are truly in a revolutionary period. And I think, people have sometimes a difficulty, on the basis of past experiences—you know, what didn't work then, ten years ago, twenty years ago—that people tend to say, "Oh, don't have illusions, this doesn't work," And this puts on a dampening, which is crazy, because my experience is the total opposite. Since I have a clear idea, both of what the world should look



Preparing to lobby Congress, Washington, D.C., September 2002.

The only order in this thing, is using the mind, and being intelligent, and not being stupid. It's not wrong not to know something, it's wrong to sit around and not do something about what you don't know, about correcting that obsession, huh? So, we'll be flexible, aggressive, sly, clever, honest, all those good things. And, we just have to work at it, and devise our tactics as we go along, based on the readings we're getting. Because you're going to get opportunities I couldn't anticipate, you couldn't anticipate; you're going to have to respond to them. We're going to have to decide how to respond. We'll discuss it! Someone will say, "Well, when's the next conference?" What do you mean, we're going to discuss it *tomorrow*. And that's the way we'll do it. So, that's the key in this thing. A high degree of flexibility, like, and also, what the crisis is going to be, I don't argue with people from the standpoint of what is now, but from what I know will be the case in four weeks from now, in half a year from now. And, when you do that, you would be surprised, how many things we can now get in terms of total breakthroughs.

We just had an intervention in Berlin, and our people intervened with the financial collapse, and a leading banker of Deutsche Bank, completely agreed, and said, "Look, you are completely right, we need a new financial architecture, let's have a meeting." Now, if you go in such a thing, with a mind-set that this doesn't function any way, don't have illusions, and so forth, then it doesn't happen. But, if you assume that this guy is about to go bankrupt, and that his behind is already burning, then it's completely different. I keep telling people, that in Germany, in particular—in Germany we are the Büso, we are not a Democratic Party, you know—the biggest thing I'm fighting is, that people still have this vestige, that they say, we are a little party. And I keep telling people, we are *not* a little party, we are the most important force opposed to the oligarchy which exists. We are it. And, if you approach it with that sovereignty, then people respond also differently to you.

I know that we are still not where we should be, in terms of a breakthrough, but we have still three weeks, exactly three weeks— in these three weeks a lot can happen. And I'm telling everybody, go for a killer breakthrough, until the very last minute.

So, I think we really are in a period in which you cannot project your experience from the past, into the future. Because that is necessarily wrong. You have to have a vision, what you want, and then you use any flank which opens up. So, I think if we proceed this way, I know we can win. And I think there is no alternative to winning, because the alternative is too horrible, to accept. So, let's win! [Applause]

Moderator: Lyn, one thing we do have a lot of, is Baby Boomer consultants. And the Baby Boomer consultants know everything that doesn't work. So, any proposal you come up with, you're going to run into someone in an office, who will say, we tried it, it won't work. When you hear that, go out and try and prove them wrong, as a proof of principle. We have time for one more question. Lamari?

Lamari: Hi, my name's Lamari Navarette. I will soon be organizing full-time in Los Angeles. I saw a documentary recently about mass female sterilization experiments done in Puerto Rico. And, this was done over the period of time between the 1920's and the 1970's. They also tested methods of birth control on these women, which are much stronger than what is used today. So, what I'm wondering is, as U.S. citizens, which these people are, how was that allowed to go on, for so long, over the heads of the American public?

LaRouche: Puerto Rico was chosen as an experimental ground, together with many of the other Caribbean islands, for various kinds of sociological and medical experiments. One of these was the birth control experiment. This was done early on, and was a part of what became Kissinger's NSSM-200. The idea was, we're going to reduce the population. We're going to use birth control, we're going to find out what the effects of using birth control are, because the population of Puerto Rico

had a certain, shall we say, a high propensity for producing babies. And this is not merely producing a number of babies, this involves a cultural tradition, a tradition in families, of people of a culture, their idea of having a large number of children, having a family, was very important to them. And, so, what the experimenters were interested in, were the psychological effects of birth deprivations, as well as birth control. And they experimented with such things as, to what degree can you turn Puerto Ricans into homosexuals, by means of birth control? All these kinds of, all this good stuff.

So, also, the Caribbean islands were used, including Puerto Rico as a part of this, as a place for conducting medical experiments which would have been considered crimes in the United States. This involved drug experiments, involved psychological torture experiments, and so forth, of various kinds. So that, what happened is, that many of the things that have happened to the United States, were done as experiments in Puerto Rico, or adjoining islands, where they could get by with murder, or worse. And this was the basis for defining much of the social policy and psychological control policy, in the United States. Now, similar things were done in Africa. African populations were used for human experiments. And the worry was, that HIV may have come out of some of the way the experiments were done on immunization in Africa; that you might have actually produced a species jump, from green monkeys, to human beings, by the way things were being done in Africa. So, this is the general problem, that crimes are being committed, and have been for a long time, and Puerto Rico was treated as a place where they could get by with it, because you had one section of the Puerto Rican population which was convinced it was an oligarchy.

They had this idea they were a Spanish oligarchy. And they looked at the rest of the population as being peasants, for whom they had contempt, in practice as well as in attitude. And, they were completely indifferent to what might be done to these poor people in that island. They didn't care. So you had a small group, from the stateside, controlling this operation, running these experiments. The birth control experiment which is referred to, is typical of that. It was an experiment, a sociological experiment, on both, how to launch birth control, and how to get benefit from the curious side-effects of an imposed change of culture in a population. Mean. Nasty.

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Following his keynote to the conference plenary on August 31, Lyndon LaRouche answered questions from among the audience of 1,000, as well as questions submitted from among those listening on the Internet. Debra Freeman, spokeswoman for the candidate in Washington, D.C., moderated the question and answer session. The following are questions from Youth Movement organizers.

Moderator: I'd like to take a question from our audience, gathered here.

Nick Walsh: Hi, Mr. LaRouche. I was wondering about a theory of knowledge. In reading your writings, there's a tendency to look at it, as a kind of really in-depth historical narrative. You have Plato, and then Riemann, Gauss, Leibniz. And it's an overview of history. But, what I'm wondering about is, how your discovery, the principles in economics you discovered, organized this overview of

history, and changed it. I've read a few times in different things you've written, about how a certain level of theory of knowledge is available to us now, through your discovery, that wasn't available to us before. I'd like you to elaborate on that. Thank you.

LaRouche: Well, I've often used, as a pedagogical device, I've referred to the Raphael mural, "The School of Athens." And, if you look closely at that—I think it's an excellent pedagogical device if you look closely at that, you'll see faces in there who are not contemporaries, in

totality, but who are in the same room. And people, who were often adversaries of one another, in their ideas, in the same room. Now, you say, "What is Raphael portraying?" As I've explained a number of times, that, all of us, who have gone through the experience of reliving the attempt to rediscover the actual, or alleged discoveries of famous people in many parts of history-especially in European history, which is a fairly integral phenomenon, come away from that, we know the name of the person. We've probably seen a picture or a portrait of them, or some depiction, which passes for a portrait. We know the time and place in which they lived. We know the culture, the issues of that time. I mean, that's what you do, when you study philosophical history, the history of ideas. So, there are all these people. You experience the thought that they experienced, because you replicate the experience as described.

And, if you read a book, or you do a study, and you can't get the replication of that experience, you say, "I don't know that." You only know something, as an *idea*, if you can replicate it on the basis of the evidence that you can adduce. Place, time, circumstances, precedents, contemporaries.

Now, to the extent that any of these guys are capable of being replicated by you, it is as if you were speaking to them, alive, inside your own mind. Because you know the ideas; you are thinking the thoughts that are described by them, as thoughts, as concepts—not as descriptions, not as something you can look up on the Internet, but as an actual experience, a cognitive experience.

So, therefore, these people live in your mind. Now, the way it happened to me, as I suppose it happens to most



Youth Movement meeting plans Congressional lobbying, September 2002, Baltimore, Maryland.

people: When you're looking at these people, historical figures, historical figures of ideas—famous or less-famous names in history, whose ideas, whose mental life you've re-experienced in some important part, you've relived the thought they thought, at a great distance of centuries, or even millennia.

And, then, you have the experience of a child. What's a child's experience? The oldest ancestor I knew living was a great-grandfather. And the most famous person, was of a still-older generation, whom I didn't know, but who was a dominant figure at the dinner table of my maternal grandparents' family dinner table, Daniel Wood, who was a famous abolitionist and so forth, in the United States. So, these people, family people and friends and acquaintances of the family circles, also to a child, and a growing child, their ideas as a discussion with these people, form a part of something like "The School of Athens," with all these figures who live in your mind, or live in your imagination, as re-created experiences, whether historical or by direct discussion.

And that's what's memorable. So, as I keep telling people, I say, "If you want to understand me, you have to know I'm 200 years old. Because, in my own family circles, the living connections I have, to actually living people, go back 200 years. Today. I'm 200 years old." You thought I was younger, didn't you?

When you start from that standpoint, then, if you've studied history, as I was fascinated with history, ideas, and so forth, early in life; and my adolescence was largely occupied with that, as opposed to the stupid thing called school, I was opposed to;- and therefore, these people live inside me. Now, I recognized something from this, that's not merely an experience that I can recall, but I recognize from reliving that history, with that kind of integument in it. I recognize that there are no such things as linear lines of development of ideas. There are interactions. There are interactions like mine, which transcend time and space. To me, Plato is as immediate a living person, more of a living person, than most people I could meet in the Congress today. He's more alive to me today, than they are! And I think many of their voters think so, too. [Laughter]

So, this is the point. You have to understand ideas, first of all; you have to locate the idea as *irony, paradox, metaphor*, never literal. If you look it up on the Internet, it's not true. You have to *experience an idea*, which is never a literal, deductive experience. It's always an interaction, a tension: How does the world work? How does the world work? How does the world work? And you get this sense of the interaction of many people, in many fields.

For example, take the case, just before our dear friend Bill Warfield died, the last time he had an illness was here, at the last conference we were having here. And so, I was upset by that, and I thought he should probably manage his life a little bit better; not so much to emphasize the performing person, and more the teacher. Because, here we are, most people that I know in music, don't know what music is. They think it's notes. They think it's technique, or something. They don't realize it's ideas. So, I suggested to him-I knew that he very much liked the "Vier Ernste Gesänge," which is one of my great, really powerful, favorites. It has been since 1953it's a real favorite for me. This is one the most powerful pieces of composition in music. It's Brahms' last will and testament. Really, musically. It expresses a powerful idea, the power of agapē. It's developed in a powerful way, and the way that Fischer-Dieskau has performed it and recorded it; and the way a friend of ours, who was deceased a few years ago, Gertrude Pitzinger, an alto, performed it, is *absolutely magnificent*. You could have access to this thing—magnificent. So, the interesting thing about Furtwängler, of course, was that he always advocated what was sometimes called "playing between the notes." That you do sing the notes; you hear the idea. And the idea is located by the *irony* of the counterpoint, the *irony* in the thing.

So, what you do is,— it's just like a great actor on stage. You never see a great actor on stage, never. Only after the play is over, and the applause begins. But you never see an actor, when they're really performing. You see the *idea* they're projecting. You think the idea they're projecting. They exist for you in your imagination—their idea, they're creating a character; they're creating an image, an idea. And you see them in your imagination, on the stage of your imagination. Never look at the actor. Remember the great Greek tragedians: They wore a mask! Two or three players would play the whole play with masks! You never saw their faces. You never saw *them:* You saw the part they played. You saw what they created in your imagination, on the stage of your imagination.

So, I noticed that Bill was devoted to this, and I suggested, "Why don't we get a bunch of people, let's really work this thing over, discuss this 'Vier Ernste Gesänge,' as to what it means. And get across the *real idea* of the 'Vier Ernste Gesänge,' not as something that you sing and interpret in a certain way."

And that's what most musicians today lack, and most musical audiences lack. They don't know ideas! The don't live it. It's externalized. It's something to look at, something to hear. It's not something that *moves you*, to move you to tears or expressions of joy, and you don't know quite why. But it gets the message across. And, that's what this is. You have to see ideas in that way. You have to read between the cracks, sing between the notes, and hear the music between the notes.

And, therefore, it's only when you get a congregation of many different minds, in your mind, all singing their particular message, in a vast counterpoint, that you can extract from that a sense of reality, a sense of truth, that this is humanity. Because humanity is not one person coming on stage after the other. All humanity has this sort of timeless connection, all on the same stage, all responding and interacting with one another. And you have to say, "What is the message? What is happening?"

It's the same thing that a great military commander he has the same problem. He's got vast armies, for which he's responsible. All kinds of details, for which he's responsible. All these things are singing to him, like music, and he has to find out what he's going to do, amid all that, and what their interconnections are.

So, that's the essence of it. There is no simple, mechanical solution to ideas. That's why we must have—for a child—must have a Classical education for all children. They must live the great ideas, live the experiences, of many generations. They must reach maturity, with a sense of what humanity is about; or, at least, the extent of a whole culture, what it's about. They have to come out with an instinctive sense of that culture. Then, they know how to act, whereas the other ones say, "Explain it to me. How do I write it on the blackboard? How do I explain it? How do I pass a test on it?" Like multiple-choice questionnaires, "How do I beat the racket?," as opposed to really understanding.

No, there's this aspect of knowledge, which is not explicit. It's a kind of tension, and it's a tension which is focused by the interplay among conflicting ideas, ironies, and so forth. That's why great poetry is great poetry; why great music is great music. There's no rule. There are rules you shouldn't violate, except for a purpose.

Moderator: This is a written question from **Erin Smith**, here at the conference: Mr. LaRouche, how does an individual know when they have made a new discovery or idea, which will benefit humanity?

LaRouche: Well, that's fun! I've made a number of discoveries in my time. I knew they were right, because they were fun.

No, you have right ways to know they're valid. My challenge has always been, not merely to re-experience things that other people have already discovered, but discover things that they haven't discovered. And, the trick to doing that, is, first of all, you must go through the business of re-experiencing discoveries, that have been validated, and that gives you a gauge as to how to approach the unknown. Once you've learned to explore the known area which was unfamiliar to you, that you couldn't navigate through, then you may be good at navigating in the unknown. It's like going from navigating the unknown seas, the uncharted seas, to navigating in space—a little bit different, but maybe what you learn from navigating the seas, will help you navigate space.

The thing that I've concentrated the most on, which probably is relevant to what's behind your question, more than what you've asked, is: The most difficult thing, the thing that Vernadsky never understood, which is the principal shortcoming of his work, is—the principal one,— he would accept the idea that mankind's discovery of a universal physical principle, enabled man, in practice, to transform human existence and the planet, forever. That he would accept. But, the idea of how a principled form of *social relations* has the same benefit, as a principled discovery in physical science, so-called, *that* would escape him. See, Vernadsky's view is adequate, when he says: The individual in society makes discoveries; they discover principles; they apply the principles; they transform the noösphere. And by transforming the noösphere, it creates a new physical condition, and that itself, since it creates a new physical condition, which is not generated in any other way, that is a proven universal physical principle.

But, can social systems, or the principles of social systems, such as Classical artistic composition,— can that be appreciated in the same way, that Vernadsky would appreciate the individual role in discovering a universal physical principle, and applying it to nature? *That is the area, which has fascinated me, all my life,* at least since adolescence. And that's the area, in which I was able to, shall we say, on my own, really make a number, or series of discoveries, which uncorked a whole lot of other series of discoveries as a result.

But, it's that simple thing, that conceptual grasp. It's the same thing as you get in great poetry, or great drama; the same thing. For example, let's take the case of Hamlet. Every Romantic idiot, who teaches in universities or writes crazy books, or for the New York Times, or whatnot, will tell you that the tragedy of Hamlet, is the tragedy of Hamlet's failure. It is not. The tragedy of Hamlet, is the tragedy of the culture of Denmark. Just like the tragedy in Don Carlos, by Schiller, is not the tragedy of Posa; it's not the tragedy of any of the characters, as such. It's the tragedy of the Spanish culture, as otherwise described in Don Quixote; the same thing. Spanish culture, Sixteenth-century Spanish culture was morally rotten. And morally rotten Spanish culture destroyed itself. Philip was as much a victim of the culture, as he was a perpetrator. The *culture* was rotten.

Now, the Romantic doesn't accept that. He says, "The people are good." But a bad culture is bad. And, it's just like the problem of the politician, who is acting as a prostitute, being controlled by his clientele, the ones who admire him and vote for him. That's the corruption: the people, not the politician. The people. The corruption of Hamlet, is not Hamlet—it's that *Hamlet fails to change the people*. As Horatio says in the last scene of *Hamlet*, as Hamlet is being carried off stage, as a dead corpse. And Horatio is saying—while the others are saying "Charge! Let's go out and do it again!,"— Horatio says, "Let's stop, and re-enact these things, while they're fresh in our mind, so we don't make the same mistake again." The mistake lay in the people of Denmark, not in Hamlet.

The mistake lay not in Philip or Posa. The mistake lay in the Spanish people, in the culture of that century.

This was *always* the case. Tragedy can come from *inside* a society only through the corruption, the moral corruption of the people. What you're dealing with, for example, today, in the United States, is the moral corruption of our *people*, not bad politicians. We have bad politicians, but who makes them bad? The people! Who elect them!

So, therefore, the key thing, which is very difficult for the Romantic and others to understand in society, about ideas, is, from this standpoint, they think of the individual, in the way that the Romantic, like Coleridge or others, would appreciate Shakespeare, or mis-appreciate Shakespeare: Romantic view of the *tragic figure*, the trag-



Youth organizers address Labor Day conference plenary session, Sept. 1, 2002. Clockwise from top left: Delonte Bass, Riana St. Classis, Sky Shields, Brian McAndrews.

ic individual, who misleads a nation; as opposed to the tragic figure *who can not resist the folly of the nation,* and doesn't correct it, doesn't resist it. The person who *capitulates* to popular opinion, is the victim of the people. And that's the lesson of tragedy. That's the purpose of Classical tragedy, to teach that. And the purpose of bad education by Romantics, is to tell you that's not the case, it's the tragic individual figure, who's the problem. And it never is.

And that's true with this society, right now. Can you *see* that? The problem of the nation of the United States, is not George Bush, but the dumb-bunnies who elected

him! Or Al Gore, or the two—it makes no difference. One is as bad as the other. *It was the people, who committed the crime!* You elect an idiot to be President, or inaugurate him, when the alternative was another idiot, of a babbling variety. Who do you blame? The idiot? Or the people who elected him? Couldn't the giant powers of the Democratic Party and the people of the nation, in all their exertions, find the ability to select something better than these two dumb-bunnies?

The tragedy lies in the people. The key thing in society, in ideas, is exactly that, from my standpoint. My key work, essentially, was to understand the social process, to understand how it works. That it works in the same way, that we would think of physical processes, as taught as physics, would work. And, to see a process, a social

process, to understand it *as a social process;* to operate on it *as a social process,* which has *principles.* That's where the great shortcoming has been. That's what I've been trying to correct. And, I'm still at it.

Moderator: I have one more written question that came in, that I want to ask you, because it comes from a young woman, who is in Berlin right now, with a brigade of young people there from the United States, organizing for Helga's electoral campaign, which we will hear a lot more about over the course of the next couple of days. This is from Elke Speis, and she says: Mr. LaRouche, I'm writing to you, because I'm a fairly new organizer from the West Coast of the U.S.A., and I am currently in Berlin for Helga's campaign. Erin Regan got here about three months ago, and I arrived here three weeks ago, with a bunch of other people. And we've been having a lot of student meetings, and they've gone really well. And we brought eight students from Berlin to the Oberwesel conference.

At Oberwesel, Erin called a meeting of all the young people from the European movement, and their contacts, and we discussed the question of the recruitment of youth in Europe, and we were really happy, because Helga was there, too.

But my question to you, is this: How do you approach student recruitment in Europe? And importantly, what role do, and should, the Baby Boomers play in that process?

LaRouche: Well, what you have to do, is get the Baby Boomers to put on a set of asbestos underpants, because you're going to set a fire under them!

That's generally the best suggestion I can make, because— Don't underestimate the power of people in the 18- to 25-, and the vicinity of that, if they're mobilized as a youth movement.

See, one or two little youth out there, by themselves, feel they can't get much done. But if you can create the impression there's a mob coming—. The heat is on. Uh, oh! These kids are all over the place! Oh my—w-r-r-r!

That's the way you do it. That's the way, I just insisted, when we got into this discussion about outreach. I said, "This is what I'm talking about! You dumbheads! I've been telling you for over a dozen years: 'Get back there, and do mass outreach!' "

Mass outreach is not standing on the corner, limply, with a leaflet in your hand.

Mass outreach is taking real politics, the politics of ideas, into the streets, and turning the streets into a political forum. The way is, you don't say, "Pleeze, would you

like to hear this?" You say, "Hey, you dumb baloney, how'd you live this long?" Not that, but, you know, you have to go out with that sort of idea in mind. Then, you have the right idea, because, this guy's coming up, and you say, "Ehh! How much money did you lose in the stock market?" You know, particularly in areas like Washington, D.C., downtown Washington, D.C.; or New York City downtown, and so forth:

"Hey! How much money'd you lose last month?"

"I didn't lose it last month: I lost it all two months ago!" "Why do you think you made that mistake. What was wrong? Didn't you know? Didn't you know that you'd been warned, not to do that? You been warned, not to lose that money?"

"Who warned me?!"

And you do things like that, and you get a discussion going. And you be provocative: Because, the guy's coming along, he's coming along, he's in a state of denial. His mind is in a total state of denial. He's pretending, he's ugly, he's unhappy, he's miserable. The world stinks, but he's not going to admit it! He's talking about the recovery! "Oh, you've been talking to Dracula, again, huh?" So, in that state of denial, you have to

break through the shell, right? And you have pull the string. So, if you've got a bunch of you, out there,— if one guy can't get under his skin, maybe the next one will, and by the third one, he's going to give up and say, "Oh—!"

* * *

On Sept. 11, 2002, Lyndon LaRouche gave a historic Internet webcast, entitled "The World Will Never Seem the Same." Among the questions from around the globe, were several from members of the LaRouche Youth Movement in the United States. Debra Freeman moderated the webcast. **Moderator:** From **Rebecca Thomas,** an organizer from Baltimore who has been doing a lot of work on the campus: Mr. LaRouche, I know that they say that imitation is the sincerest form of flattery, so I wanted to let you know that Delonte and I attended an event at the University on Monday, where Rev. Jesse Jackson spoke. He was definitely doing an imitation of you, 'beyond the future after funerals' line. He gave them a strategic briefing, everything from the chickenhawks, to Iraq as a diversion, to the financial crisis. What I really wanted to ask is, when will Rev. Jesse Jackson come clean and endorse you as the only qualified person who can actually run the country, as Amelia [Boynton Robinson] has?

LaRouche: He once had a certain degree of support for



Youth organizers address Labor Day conference plenary session, Sept. 1, 2002. Clockwise from top left: Ingrid Torres Guajardo, Elodie Viennot, Cody Jones, Sam Dixon.

Martin Luther King, and when Martin was killed, he went in a different direction. There are many people with his combination of certain strengths and weaknesses in society. So, what you have to do, is keep a framework in which they can find a place that is a useful place to go, and give them some kind of direction and sense of purpose. And they become useful, like in the army. But then, when the leadership goes away and the organization disintegrates, they tend to become relatively useless.

It's a question of leadership. They're not true leaders. They may be in influential positions, but they're not leaders in the sense of stand-alones. They're not people who can stand up for themselves, and who will say, "I'm going to fight this thing, even if everyone else deserts." That's leadership: To be willing to stand up all by yourself and take a position, without fear or favor. "It's got to be said, and I'm going to do it."

Jesse hasn't got that quality. Jesse can play, because of the influence he's acquired, a very useful, contributing role in the process of trying to move things in this society. And I would welcome that.

Moderator: For those of you, who are listening via the worldwide web, you are listening to an live address by Democratic Presidential pre-candidate Lyndon LaRouche, on the one-year anniversary of the Sept. 11,



Lyndon LaRouche teaches at Leesburg, Virginia cadre school, Sept. 4, 2002.

2001 attempted coup d'etat against the United States. **Erin**, do you want to ask this question yourself, or do you want me to read it? Okay. This is from a young organizer in Baltimore. It says: Lyn, I have realized that the education system is terrible. However, as we strike to get you into the White House, and create an industrialized economy, we're going to need engineers, scientists, doctors, etc. As a young person, who's truly passionate about becoming an industrial engineer, and knowing all of the conditions that we are currently facing, what should I be doing during this time of crisis?

LaRouche: Well, Erin, it's what we're doing. See, the universities don't function. I've gone and surveyed the universities in Europe, especially Germany and this country. Taken surveys of what is being taught in these universities. What are people doing? And what is the general nature of course content?

Now, in any institution that trains people with aid of a computer-scored, multiple-choice questionnaire, as a test of competence, that institution is intrinsically incompetent. Institutions that rely on mass classes, like the old Berkeley phenomenon, of thousands of students herded in to hear some fool babble, and then you get questions on the thing, it's not an education.

Now, you ask yourself: How was education developed, in modern European history? There are many cases of education. You have, for example, the ancient, Abbassid Caliphate, in Iraq. They paid money, riches, to people from every part of the world, who would bring in

a manuscript—they paid them in gold—for some ancient manuscript, containing some subject of knowledge was presented.

Then you had in Europe, you had the development of teaching orders, such as the Brothers of the Common Life, which continued in existence to the middle of the Sixteenth century, and they taught young boys. Now, the young boys, in those days before books were used, the young boys would relive great discoveries, from manuscripts, as a part of rewriting, or copying, part of the manuscript. This produced the students of the Brothers of the Common Life, who made, or were key, to those who made a revolution in European civilization during the Fifteenth-century Renaissance.

What I do, is I reduce,— I say that we, and our young people, must become, in effect, a university. That, while acting, organizing, and so forth, you must be a university. We can create a better university than exists in the United States generally today, in that way. We're acting. We're acting in politics, in history, in music, other parts of art. We're attacking the hard core of physical science, and science and mathematics from the standpoint of physical science. What I've been doing, with others, is to reduce the core curriculum at the upper secondary, and undergraduate level, to a few essential number of issues, in the development of modern European physical science, and mathematics, based on the precedent of Classical Greek mathematics and science, from Archytas and Plato, through Eratosthenes and Archimedes. Because what happened in the Fifteenth century, was the rebirth, in a significant scale, in Italy and elsewhere, of knowledge that had been lost, since about 200 B.C., with the rise of Rome, of Classical Greek culture. And much of the rudiments in modern scientific knowledge, are based on these Classical Greek studies.

So, therefore, if you study what was done, by Leonardo da Vinci; the writings of Nicolaus of Cusa, founding modern experimental science; the work of Kepler; the work of Fermat; the work of Huyghens; the work of Leibniz; Leibniz's collaboration with Johann Bernoulli; the work of Kästner, Abraham Kästner, a great teacher in the middle of the Eighteenth century; the work of Gauss; the work of Riemann; and some others of the Ecole Polytechnique of that period. You put that togeth-

er, you have a core, in which the entire essence of mathematicalphysical science, as a mathematical physics, is there. The fundamental principles. If you understand those principles, you will not know everything, but you will know how to know, and the basic thing of education is not to teach people what to think, but to teach them how to know.

And, therefore, we should think of young people today and we should try to inspire this as well as doing it—is to create a university in motion, of young people who come from the nofuture generation, who are seizing the future, and seizing the qualifications to conduct it.

Brian: All right, I'm Brian McAndrew from Philadelphia. I

just had a question about organizing. And, it was more to do with,— not organizing other people—but organizing yourself out of the state in which you find yourself, where it's almost like you have a fight going on within your own mind, between two people. Where, you know, the one is characterized by the fact that you're having fun; and when you're in that state, you feel like you could organize—you know, you could move mountains in that state. And a group of people in that state is a very potent thing. But, then there's also another state you can find yourself in, where it's almost like you're, what's characterized as "being blocked." And some people might get into single issues, or become pessimistic, or cynical.

And, you can see yourself in this state. You know that you want to be having fun. But, you're in this state, and you want to pull yourself out of it, and you're stuck. You're in the mud, I like to call it. Everything slows down; you're not having fun any more.

You can see it in other people; but, when you see yourself in this state, how do you pull yourself out of it, to get yourself back on focus? And then, how can you also use that as a way to see it in other people, as well, and to get them back on the right focus, too?

LaRouche: Well, the point is, the difference between the particular and the universal. It's always the problem in life: the particular and the universal. Examples of universal, are discoveries of empirically valid, universal physical principles. Physical universals include, at least, the nation, and the world at large. It means changing the nation,



Leesburg, Virginia, cadre school, Sept. 4, 2002.

changing the world.

Classical education used to be one of the—and spillovers of it—used to be the great way—moral development—to deal with that problem. Because, if your mind is occupied with the experience of actually reenacting the discovery, of universal principles, then you have a sense of your universality.

If you say, it's "little me," then you're in a fog, like a gray fog; and, how do you get out of this sticky stuff, of this gray fog? And one of the effects of this, is the introduction of the educational programs, in schools—now, this is very important: Childhood, primary school, secondary school, are very important in the development and the kind of culture you're experiencing from peer groups and others, in those times, are extremely important. They can be very depressing. I know. I always thought about it, because I was always concentrating on universals. I was interested in philosophy, things like that. I knew everybody lied all the time, so I didn't bother trying to figure out what they were saying; I knew they were lying! So, why argue, you know? And concentrate on universals.

The other thing is what's sometimes called "alienation." A particularity gives you a sense of not being connected to humanity, not having a sense of place.

But the Classical education, which gave you a sense of universality,— I often use this question of Classical artistic composition, as another aspect. Scientific education, which is based on principles, not "blab school," not multiple choice questionnaires, and that kind of nonsense, is very important. Because, even if you're not going to become a physical scientist, the fact that your mind is attuned to the idea of universality and knowledge of universality, gives you a sense of identity, which is different than a person who has no scientific education. It's important to have a physical scientific education, at least in that sense.

But, for example, take this case, which I've often referred to, the case of Classical drama. Now, I suppose everybody can observe a drama, but just think about the different ways they observe it. A great Classical drama: Originally, in our culture, with Classical Greek drama, in which two or three experienced people, wearing masks, would come out on stage and play the different parts, sometimes the same person playing several parts. So, the audience could not see the person, who was performing, as the actor. The audience was forced to see the personality, represented in the imagination, which was the intention of the drama, is to be able to imagine the reality of the person, who's being represented. As I often refer to Shakespeare's Henry V, the Chorus part, in which the character comes out on stage, in forestage, and says, "You're not going to see the horses. You're not going to see these events. But, we're going to condense events over a long period of time, into a short period of time. So, you have to, in your imagination, you have to see what this play is about." In that case, every one of these great Classical dramas, including Shakespeare, Schiller, and some of the Classical Greeks, like Aeschylus, is,- they all have to be appreciated as poetry.

Another form of drama—which is *actually* drama, great Classical drama—are Plato's Socratic dialogues. *They're all Classical drama*. And have to be heard, and understood, as Classical drama. *Not read*, as if they were prose. They're drama! There's a struggle going on. There's a struggle going on in *The Republic*, between Thrasymachus, and Socrates, for example, and Glaucon. You have to sense these personalities are in conflict; you have to sense the *minds* in conflict, the three attitudes. Which you find in today's society—you find the same problem in today's society, in Glaucon, Socrates, and Thrasymachus. Different types of persons, same times. So you have to sense that tension. And all drama, must be compared with Plato's dialogues, in that sense.

And even, dramas like *The Death of a Salesman* by [Arthur] Miller, gets that. One of the best is Eugene O'Neill's *The Iceman Cometh*, a very powerful drama. It's not on the universal level, but it's *very* powerfully delivered, when properly done. And it gets across, in the final act, it gets to the point where the audience is actually *shaken*. That's why it's so powerful. Because it's in the *imagination*, not on the stage. They sense this thing, this process of change.

So, if you can look at Classical drama, in particular, it helps you to deal with life, if nothing else. Because you can see—. Then, look at the social interactions you're running into, *not* in terms of literal, "He said that. What does he mean? What does he mean?" Don't. What you have to do, is say, "I have to take into my imagination, What is he really saying? What is the reaction, the interaction? What is really going on?"

And you get a sense, that what is being said, in most discussions, what is said, is not the issue. But something *behind* it, is the issue. And, can you smell it out, with your imagination? And then, can you make a test question, and say, "Well, aren't you really saying that?" And then the drama, becomes a real drama. Because, if you get someone to say what they're unable to say, that they're saying; you hear it; you sense it from the interaction, as in a great drama—what a great dramatist does in composing a great play. You get that. It's an *art*, in how to deal with real social situations—including yourself! As you say, you're looking at yourself in these kinds of situations.

So, my view is that, when you get into mass organizing, as you're doing now, you get that. You get one or two people, out meeting people, you don't get that sense. You get four or five or six, meeting a lot of people, in a group, you cause a *social interaction*, where you really begin to see what *really* is happening, and it's free-wheeling. And, you can walk away from it, and you've *learned* something. And you feel good, because you've learned something. You understand something you didn't understand before. "Hey! That's a politician! I never knew they were like that! Boy. I got that guy figured out!"

So, that's good, and therefore, I think that generally, involvement in science and Classical art, is a way of privately and otherwise, reinforcing this resource, that you can utilize to deal with all kinds of problems. And you can look at yourself, you can stand up on a cloud, and you can look at yourself down there, and see what really is happening. What do you want that character to do? [Applause]

Moderator: I'm going to add this in, because I think it's a good question. It's from **Delonte Bass,** who is a young organizer in Baltimore. He says: As a young organizer in the quest to become another genius in this universe, there is a time constraint, between organizing the population and discovering the universal principles of the profound thinkers of the past and present, including you. What was, and what remains to be, your most effective way of becoming more of an intellectual during each short, 24-hour-day period. Please keep in mind, in your answer, that I do need some sleep! [Laughter]

LaRouche: Well, I work at least 80 hours a week. And, I will deal with things that I have to deal with. But, what I love to do, and what motivates me to keep doing it, is when I have to deal with conceptual problems. And, I realize, in the course of life, of many experiences and so forth, that, really, what people argue about, most of the time, is not worth discussing. It really is not worth it. It's not important. As you know, the way I answer questions, I will sometimes seem not to answer the question, but I'm really answering. Because, as I said, I'm not just listening to the question: I'm listening to what I'm hearing *behind* the question, because that will be useful.

A simple answer is not useful. It may be just confusing, because the question is confused. You know, there's one thing that Kant said, that I believe. He said: To answer certain questions, creates a spectacle, like that of one man trying to milk a he-goat, and the other trying to catch the product in a sieve. [Laughter] It's one of my rules I always remember, when answering questions: Never do that!

What you're trying to do, is, you try to look *behind* what is the intention. What is the real question? What is the state of mind, which is speaking to you, as opposed to the way it's being expressed?

And, I'd like to look at society that way. I find that most writers are incapable of writing what they mean. Most people are incapable of speaking what they intend. And so forth, and so on. And, if they say something, they really don't know what they're saying, but—. For example: Typical is the case, of what we're talking about with mass insanity, of the type that Rumsfeld typifies. Why do I understand Rumsfeld? How do I understand these characters? How do I make strategic assessments? How do I make long-range economic forecasts? I'm very good at that, as you know. How? Because I look at how the mind, which believes certain things, is going to develop its reactions, over a period of time. And what the effect of what they do, is going to be upon them. So, in that case, you see it as a system. You see a structure of belief, or evolving belief, as a system. And you don't understand the system, you understand how the system is going to come to a point of crisis, in which people either give up the system, or face a catastrophe as a result of sticking to it. Like the present crisis.

If people stick, in the present situation, to what they've been trained to consider as acceptable, in this crisis, *this society is doomed;* it'll be extinct. Only if we now make changes *in what they think*, axiomatically, will this society survive.

So therefore, I deal with those kinds of things. I've spent most of my life, dealing with that; especially my adult life, and, I guess, since adolescence, since I began wrestling with these Kant-Leibniz things, and so forth. It's to think of things in axiomatic terms, in systemic terms, not in so-called "algebraic" or "deductive" terms. And I always try to see the mind, the mental state, and how that mental state functions *behind* the particulars. I don't look at the individual axioms; I look at their interrelationships.

I'm thought of as an epistemological character. That is my greatest source of strength, is epistemology, and I practice it. I practice it. And that's the way you deal with this. The fascination with ideas, clinically, even pathological ideas, pathological people. It's important, because you've got so many pathological people in government these days. If you're going to deal with government, you have to understand pathology!

But, those kinds of things; that kind of activity. Getting off the particular, and get to the principle. Think of principles, universal principles. And, explain things in terms of universal principles. If you can't, you don't understand the problem, yet.

* * *

At the September 1 evening plenary session of the Labor Day conference, some 15-20 young people reported on their experiences in joining the LaRouche Youth Movement. Two selections follow.

Riana St. Classis: Hello. My name is Riana, and I'm an organizer in Seattle, for about seven months. And, I wanted to tell this organization how grateful I am to have found it. And I can say this with a lot of depth, because I've woken up many mornings wishing that I hadn't stopped at the table that day. You know, just thinking, "God, I wish I had just walked on by like everybody else—*what was I doing?*"

But, I've thought about the cadre school-and there

was a lot of work that got me to that cadre school—but once I was there, I had this profound moment, where I realized that my whole life was going to change, and that, I had finally found something that I had been looking for, for so long. I had been looking for a community, I had been looking for people who were talking about philosophy, and I realized that I had been looking for people who were *doing* something, although I hadn't really thought about it in those terms.

And it made me think back to a moment when I was in college, my second year of school, when I called my father up on the phone, and I was crying, and I said, "I don't know what my purpose is, Dad. I can't find it. These teachers are so mean, and all these people are so competitive. I just don't know." And my Dad said, "Well, you see, I thought I had a purpose, and I realized, there aren't any purposes. You just have to get a job. You just try to get along. You know, sometimes you stub your toe, but, you just keep walking." And, to finally find an organization, where they're saying: "You have a purpose." And that's when you really get scared! Because that means you have this huge responsibility. You have to do something.

And that's what I'm trying to do every day. And that's what I want to encourage everyone else to do, because it is frightening. I realize, it seems it would be easy for people to just—join. Because you see it. You see that it's true. And I know why they block: because it's frightening. And I would like to help to try to give people courage and myself courage to just keep fighting. Because it's worth it, because we have the whole world to build.

Thank you.

Cody Jones: Hello. My name's Cody Jones. I'm a LaRouchie. [Laughter] I've been sober for three years. [Laughter] I just wanted to share a little anecdote, that occurred last week, that gave me a real insight into what's going on right now. We had this rally at this campus...

The first thing that sort of hits your mind is, we all grew up in this culture where everyone wants to be cool, you want to be popular and cool, and here's these people who are yelling at you, and so, you want to retreat into your little shell, like, "Oh, we're not popular and cool here on this campus." But, I want to actually get to the bottom of what's going on here. So I went over to this group of these sort of laid-back, degenerate kids who were yelling this stuff at us, and I went up to them, and I said, "What the hell are you doing? Why are you making yourself seem like such a fool?" And the response I got was, "The only one that's a fool, is someone who thinks he can do something about the world." And so, it gave me a real insight into actually what's going on here: You've got these other young people they're aware that they're part of a no-future generation. They know that the whole thing is falling apart. But the difference is, that they lack leadership. They lack direction. They're not really doing anything. So, they've got this paradox. They're sitting on their ass doing nothing, in this no-future generation, and then they see people actually doing something, saying they can change, and it sort of freaks them out. So, they have sort of this infantile reaction to it....

And it really gets to this question of leadership—that you've got a freaked-out population. This is what you get from your parents. They sold out at a certain point because of fear, and now they're freaked out because they see you actually doing something. And now they have to admit to themselves, well, maybe I should have done it whenever I was young. And so, that freaks them out.

But I think the key is what Lyn discussed yesterday, when he said, what's going to make this win, what's going to move this thing, is leadership. Obviously, Lyn himself—he is the leader. He's got leadership. But, in terms of us, what he then says, is that the key to leadership is courage. And that, where we get courage is through a development of a sense of identity, a *human* sense of identity, as thinkers, as intellectuals, as people who actually can discover, know, and act on truth. And I think this is the key to all this. Because there's obviously all kinds of excitement and enthusiasm and energy, but if we don't take on the real intellectual commitment to develop our minds and really develop that true sense of identity, as thinkers, as intellectuals, that's only going to carry us so far.

So, the reality of what we've got to look at is: Let's be realistic. The reality is, this financial system is collapsing, and if anything is going to come out of this that's good, it's going to be this movement. So the reality is, at that point, there's going to be a serious demand for LaRouche's economics. LaRouche can only be in one place at one time, so we've actually got to think that big. We've got to be thinking in terms of, okay, I'm going to be called upon to be brought into Zaire, Brazil, any country in the world, to actually guide and organize these nations and these leaders to implement LaRouche's economic policies. And I think people should actually be thinking about it that way. Yes, we've got this Youth Movement, but the Youth Movement is actually just a global movement to implement this new financial system, a Renaissance, so that we can, in fact, avoid a dark age.



NEWS

he Labor Day conference of the L Schiller Institute and International Caucus of Labor Committees, held in Northern Virginia August 31-September 2, saw a revolutionary new development, with worldwide implications. At this extraordinary event, Lyndon LaRouche gathered together the forces of a new international youth movement. some 200-300 of the 1,000 or so in attendance. As he emphasized in his keynote address, this movement will not be focussed around "issues," but personalities. Throughout history it has been the



leadership provided by per-

sonalities, or the lack of such

leadership, which has determined the direction of progress or regression.

LaRouche stressed that the key to acquiring the

courage required to lead in a time of crisis, is the sense

of personal identity, based

Over the course of the past generation of those born after World War II, known in the U.S. as the "Baby Boomers," everything that had been achieved by President Franklin D. Roosevelt has been destroyed. The introduction of the "consumer society," the rock-drug-sex counterculture, and the fixation on "personal needs," as opposed to the common good, dealt the death blow to the culture associated

Jeffery Steinberg: Slowing down the

"chickenhawk" war drive.

with FDR.

IRNS/Stuart Le



EIRNS/Stuar

Dennis Small: New Bretton Woods vs. genocide in Ibero-America.



Left: *Lyndon LaRouche keynotes Labor* Day conference. Below: Schiller Institute founder Helga Zepp LaRouche.

Youth Movement Launched at U.S. Meet

To Lead in a Time of Crisis'

LaRouche: 'The Courage



The 'No Future' Generation

Thus, the need for a revolutionary youth movement. As presented in a panel discussion at the conference by Phil Rubinstein and Harley Schlanger, two associates of LaRouche who have pioneered the youth recruitment on the West Coast, this process is already in motion. Drawing on their experience of organizing youth over the past three years, Schlanger and Rubinstein painted a vivid picture of the challenges presented by the current generation, the children of the Baby Boomers. It is rightly dubbed the "no future generation," because no future is offered them in school or society. Cultural pessimism is pervasive; they have no sense of truth or mission. The dominance of the counterculture has eliminated Classical culture. most importantly, robbing youth of a sense of history, of science and technological progress. Schlanger and Rubinstein were seconded by a score of young

organizers, who took the microphone to tell the story from their perspective.

Speaking after the keynote were Jeffrey Steinberg and Dennis Small, on, respectively, the topics of "the war that's already begun," and the fight between LaRouche's perspective, and genocide, in Ibero-America. Steinberg located La-Rouche's ongoing battle against the war faction, now dubbed the "chickenhawks," and demonstrated how the LaRouche movement had already played a crucial



The Schiller Institute's Chicago-based "Philosophical Quartet," which features Youth Movement organizers, performs Mozart Quintet No. 17 in B-flat Major ("The Hunt"), K.458.

role in slowing the war drive. Small concentrated on the pedagogical example of Argentina, where one can see both the horror of precipitous descent into a New Dark Age, and the potential of development under a new monetary system.

The second keynote of the weekend was given by Helga Zepp LaRouche, founder of the international Schiller Institute. She spoke about the growing movement against the "Clash of Civilizations" war, which has been catalyzed in Europe, and the promise of the Eurasian Land-Bridge policy, which she and her husband had initiated in the late 1980's, and which is now taking off and can succeed, if the war drive can be stopped.

See page 62 for Special Feature coverage and photos of the LaRouche Youth Movement. An excerpt from Helga Zepp LaRouche's keynote presentation appears as a Commentary on page 102.

Right: Panelists Harley Schlanger (top) and Phil Rubinstein discuss recruitment among the "no-future" generation.

International Webcast LaRouche: Americans Must Prevent Lunatic War

s the Bush Administration, and Aleading lunatics in the Anglo-American political establishment, were going into a frenzied push toward immediate war against Iraq, Lyndon LaRouche addressed an international webcast in Washington, D.C. on September 11. LaRouche emphasized that there is *no one* in the Administration, or world leadership, who has shown the courage to tell the truth. The drive for war against Iraq has absolutely nothing to do with reality, but with the insistence by a group of American Toriesutopians—on launching a perpetual war against the Muslim world.

Where does this strategy come from? For this, LaRouche said, you have to go back to 1944, and the determination of an Anglo-American utopian faction to ensure that Franklin Roosevelt's anti-colonialist vision of the post-World War II era was eradicated. It was from this commitment, that Harry Truman was made FDR's Vice President in 1944, and then, before FDR's body was cold, totally *reversed* the international policies FDR represented. The crucial action was the atomic bombing of Hiroshima and Nagasaki—like the proposed war against Iraq, an insane, unnecessary act.

What that bombing initiated was a drive for world government, as a process, LaRouche said. The conspiracy was an open one, as H.G. Wells, the popularizer of the utopians, said in his 1928 book, *The Open Conspiracy*. To accomplish it, the Anglo-American lunatics developed three tools: the idea of air power; the idea of nuclear weapons; and the idea of special operations. This combination was intended as a new kind of warfare, one which was geared to *kill* and to instigate wars, but not to win the peace. This insanity went directly against an actual war-winning strategy, such as Roosevelt used successfully. Winning wars actually requires *logistics*, which require an economic base. "If you have great economic power and great logistical power, you can win wars in various ways. . . . You can win them because your sheer economic power attracts not merely the envy, but the admiration of others." You win wars by being powerful enough to make a peace that will benefit your enemy, as well as yourself, LaRouche explained.

The Hand and the Glove

This is not the policy the U.S. is using now, LaRouche continued. The current policy can be described as the hand and the glove. The utopian hand has put on the Israeli (Sharonite) glove, in order to detonate a Middle East war which will destroy the entire



Middle East and spread chaos across the globe.

While the world is against the war, LaRouche said, it appears that a kind of compromise is in place, being pushed by Tony Blair, who has convinced Bush to go to the United Nations. The first option is that the U.N. rejects the deal offered by Bush-and the U.S. goes ahead unilaterally against Iraq. The second, is that the U.N. and Bush come to an agreement, but Saddam Hussein says no. But if Saddam says yes, there is a third possible road to war: Sharon simply launches the war he needs, either with his nuclear arsenal. or without.

The problem could be solved, LaRouche said, if he were in the White House. But, until LaRouche can get into the White House, he has taken it upon himself to protect the Presidency and President Bush himself, "but somehow induce the changes in policies that I would make, at least enough of those to get us through the next two years, when I'll take over."

Italy: Parliamentary Breakthrough For New Bretton Woods System



Lyndon LaRouche was the keynote speaker at a Rome conference on July 2, mobilizing support for a New Bretton Woods. Left to right: Sen. Oskar Peterlini, Paolo Raimondi of the Italian Solidarity movement, LaRouche, and Dr. Nino Galloni of the Italian Labor Ministry.

With a bipartisan vote, the Italian Chamber of Deputies voted up a resolution on September 25 calling for a "new financial architecture" to establish a new international monetary and financial system, that would support "the real economy" and avoid "speculative bubbles." The debate, and resolution, were the result of a two-year effort by the LaRouche movement to put Lyndon LaRouche's New Bretton Woods on the agenda.

The final language of the resolution described the crisis now affecting Argentina as "a crisis of the whole financial system, characterized by speculation reaching the \$400,000 billion . . . related to a world gross product of about \$40,000 billion (this gap has been growing in the last years)," and called for a host of measures to aid the Argentine economy, with which Italy has very close ties.

One of the most important measures read: "to undertake, in particular, the initiative of continuing, in international competent forums, the activity of studying and proposing a new financial architecture able to support the real economy and avoiding speculative bubbles and financial crashes."

During the final discussion, Rep. Giovanni Bianchi, speaking in the name of his parliamentary group, stressed the importance of the paragraph addressing the issue of debt restructuring. "Not by chance," said Bianchi, "one speaks of a new Bretton Woods. I believe that we are in such an evident disorder that the need and the demand for some order is necessary. Let us not let an isolated and (unfortunately) a bit prophetic figure, like Lyndon LaRouche, who had forecast the destiny of the bubble, be the only one to carry on this issue."

Extensive Debate

The motion proposing wholesale change in the policy of the International Monetary Fund and a New Bretton Woodsstyle reorganization of the international financial markets, was discussed in the Italian Parliament on Sept. 24 and 25. Originally drafted by Paolo Raimondi of the Italian LaRouche movement, it had been signed by nearly 100 Italian Repre-Please turn to page 94

Institute Renews Call for New Bretton Woods

In late September, the Schiller Institute launched a renewed campaign for adoption of the New Bretton Woods system, put forward by economist and American Presidential candidate Lyndon LaRouche. The following statement updates the February 1997 call for a New Bretton Woods, issued by Schiller Institute founder Helga Zepp LaRouche and Ukrainian Parliamentarian Natalia Vitrenko.

Joining Zepp LaRouche in re-issuing the call, which was previously signed by over 500 parliamentarians and prominent political figures, were Hrant Khachatrian, member of the Armenian Parliament and president of Union of Constitutional Rights Party; Haik Babookian, member of the Armenian Parliament; Prof. Dr. Tatyana Koryagina, economist, Moscow; and Dr. Nino Galloni, economist, Rome, Italy.

Ad Hoc Committee for A New Bretton Woods System

Six years ago, a call was circulated, for an Ad Hoc Committee for a New Bretton Woods, which was signed by over 500 parliamentarians from over 40 countries, and several hundred Civil Rights leaders, trade unionists, industrialists, and representatives of social organizations, among them former President Jose Lopez Portillo of Mexico, and former President Joao Baptista Figueiredo of Brazil. All those who signed, were motivated by their deep concern about the effects of the global financial and economic crisis. Since then, the governments of the G-7 states have shown themselves to be unwilling to deal with the dramatically worsening crisis.

At the moment, the global world financial and monetary system has entered the final phase of its systemic crisis. Argentina is sinking into chaos; all of Latin America is following. Japan is collapsing more deeply into depression; the Bank of Japan is buying shares of banks on the stock market, in order to postpone its going bankrupt, and the subsequent global collapse of the system. The 'New Economy' bubble has burst, the American economic model is shaken by a fundamental crisis of confidence, huge banks are threatened with bankruptcy, debts worldwide have become unpayable, municipalities are insolvent, and other bubbles are about to burst.

If, in this situation, in addition, a war against Iraq is launched, a war which will have incalculable consequences for the strategic situation and the world economy, then humanity as a whole is truly threatened with catastrophe, and a descent into a New Dark Age.

Change the Agenda of World Politics

It is therefore urgently necessary that the agenda of world politics be changed.

We, the undersigned, demand the immediate convocation of an emergency conference, in the tradition of Franklin Delano Roosevelt and the 1944 Bretton Woods conference. The aim of this conference must be to create a new monetary and financial system, as proposed by U.S. Presidential pre-candidate Lyndon LaRouche, which replaces those mechanisms that have led to the destruction of productive industrial capacities and to the existence of the speculative bubble, with mechanisms which make possible economic growth worldwide and productive full employment.

National Banking, Debt Cancellation

A large portion of debt worldwide must be written off, since it cannot be paid, neither by the nations of the socalled Third World, nor by the U.S.A, nor by municipalities like Berlin. The speculation in derivatives must be completely written off. We need fixed exchange rates, so that long-term investments are again possible, and a national banking system in each country, on the model of the Kreditanstalt für Wiederaufbau, in order to issue credit for economic reconstruction.

Instead of a policy of continuing war without any peace plan, we need an economic perspective for securing world peace. The construction of the Eurasian Land-Bridge, as the center of a global reconstruction plan for the world economy, not only means overcoming unemployment and the economic crisis, but also represents the common interest of all participating nations. Therefore, the Eurasian Land-Bridge, as a concrete concept for a new, just world economic order, is also a true vision for peace.

If the current trends of financial collapse and war dynamic continue, a catastrophe is ensured. Thus, let us change the agenda of world politics, before it is too late!

Italian Parliament

Continued from page 93

sentatives and Senators since its introduction in April of this year.

This week's discussion and vote come as a result of a two-year-long process, in which similar resolutions and proposals have been presented in both the Italian Chamber of Deputies and Senate, the European Parliament, and the City Councils of several important Italian cities, including Milan and Rome. Nearly all of these resolutions, including the one currently under discussion in the Parliament, have been supported by politicians from all sides of the political spectrum, demonstrating an important move towards creating a national alliance for the common good, much different from the usual bickering and back-stabbing among the numerous political parties present in Italy.

Italy Pays Tribute To Amelia Boynton Robinson

In Milan and Rome, she was received as a head of state—in Milan by the President of the Lombardy region, and in Rome by the Human Rights Committee of the Italian Senate. It's what she deserves: Amelia Boynton Robinson, 91 years old and heroine of the American Civil Rights movement and close collaborator of Dr. Martin Luther King, Jr. is now vice-chairman of the U.S. Schiller Institute. She came to Italy with an urgent mission to help stop an Iraq war, but also to tell the story of her life-long fight against discrimination and for Black Americans' right to vote.

That fight led in 1965 to the historic "Bloody Sunday" march to Montgomery, Alabama, when she was beaten and left for dead on the Edmund Pettus Bridge, as mounted police attacked the demonstrators. The Voting Rights Act was the result of that fight, which she had led in Alabama with her husband S.W. Boynton for 35 years before Martin Luther King came there.

As she told official meetings, public conferences, and press and TV interviews, today she continues this fight with Lyndon LaRouche, whose movement inherited Dr. King's dream, "encompassing, this time, peace and development for the whole world."

Honored in Milan

Mrs. Robinson's Italian tour began September 24 in Milan, where she was officially received by Roberto Formigoni, the President of the Lombardy region. He awarded her a medal in memory of her fight for Civil Rights and in memory of Martin Luther King.

In the evening, she met students from Milan and Bologna, Roman Catholic priests, nuns, and some journalists, at a meeting organized by the university group of the Solidarity Movement in Santa Maria Liberatrice parish. There she was also interviewed by the major Catholic magazine, *Famiglia Cristiana*.

September 26 saw the first of three public meetings in Rome, at the Sala delle Letterature, organized by the City



Mrs. Robinson receives medal honoring her Civil Rights battles from Roberto Formigoni, President of Italy's Lombardy region.

of Rome. Mrs. Robinson was introduced by the director of the center, Maria Ida Gaeta, who brought the greetings of Rome Mayor Walter Veltroni, and of the City Commissioner for Cultural Policy.

In the afternoon, Mrs. Robinson was received by the Human Rights Committee at the Italian Senate. The president of the Committee, Sen. Enrico Pianetta, and the vice-chairwoman Sen. Patrizia Toia, thanked her for the honor she was doing the Italian Senate by addressing their Committee.

After she had spoken on her lifelong fight for human and Civil Rights, some women Senators expressed their appreciation that Mrs. Robinson is a very good example for women in politics, who fight for human rights, but "under totally different conditions, since you risked your life at your time," as Sen. Patrizia Toia said. Another Senator interjected: "When I come home today, I will tell my 19-year-old daughter that I met history this afternoon, and that young people should do the same."

Public Mass Meetings

A public meeting was held at the Libreria Paesi Nuovi, in front of the Italian Parliament, where Dr. Nino Galloni, economist and director of the Labor Ministry; Marguerite Lottin, a journalist and politician from Cameroon; and Lucio D'Ubaldo, editor-in-chief of the magazine *Nuova Fase*, spoke along with Mrs. Robinson.

The audience of 80 people included the Hon. Giovanni Galloni, former Minister at the time of the Christian Democracy in the 1970's; Tommaso Fulfaro, leader of the Association for the Left; and Father Ulisse Frascali, founder of the Nuovo Villaggio del Fanciullo in Rimini.

On September 28, Mrs. Robinson embodied the dialogue of cultures at a meeting of 1,000 at the Soka Gokkai Buddhist Cultural Center near Rome, which had just inaugurated an exhibition on "Three Men of Peace: Mahatma Gandhi, Martin Luther King, and Daisaku Ikeda"—the last being the leader of the Buddhist Center.

On September 25, *Corriere della Sera* and *Libero* published the picture of her meeting with Lombardy President Formigoni. A full-page interview was published on September 27 by the Italian daily *Il Manifesto*, under the headline "But America Is Not Bush."

Twenty Years After 'Operation Juarez' Mexico Seminar Plans 'The Hour of Integration'

Three of the leaders who played decisive roles in the great battle of 1982 to defend the sovereignty of the nations of the Americas—U.S. Presidential candidate Lyndon LaRouche, former Mexican President Jose López Portillo, and Malvinas War hero Col. Mohamed Ali Seineldin of Argentina joined forces in Guadalajara, Mexico on August 22.

The three addressed the opening session of a two-day seminar titled "Mexico-Brazil-Argentina: The Hour of Integration; March Towards a New Bretton Woods." The seminar was organized to commemorate the 20th anniversary of the publication of "Operation Juarez" the strategy outlined by LaRouche in 1982 for Ibero-America to change the global financial system—and then-President López Portillo's attempt to implement that strategy in August-September of that year.

LaRouche Feared

The three leaders participated in the seminar via long distance: LaRouche and Seineldin by telephone, López Portillo with a written message. Serious health problems kept López Portillo from travelling, while Seineldin remains unjustly imprisoned in Argentina, for his attempts to defend the institutions of his country.

LaRouche was unable to attend the seminar in person as planned, when Mexican authorities would not grant the security conditions required for his visit, despite the strong recommendations of important institutional forces in the country. LaRouche told the disappointed Mexicans that, in October 1982, Henry Kissinger had given orders to Mexico, that "this guy LaRouche will never be allowed in Mexico again," and the State Depart-

Landslide Victory in Brazil Elections

The last issue of Fidelio reported on the honorary citizenship of São Paulo, Brazil, awarded to Lyndon LaRouche in June. We are pleased to report that LaRouche's friends and hosts. Dr. Enéas Carneiro, founder of the PRONA party, and city councilwoman Dr. Havanir Nimtz. received landslide victories in their respective bids for Federal Congress and State Legislature in the Brazilian elections October 6. The PRONA leaders are strong supporters of La-



Rouche's New Bretton Woods. Shown above: Carneiro and Nimtz embrace during the São Paulo ceremony honoring LaRouche, as Helga Zepp LaRouche looks on.

Iran Trip vs. 'Clash of Civilizations' War

A melia Boynton Robinson "won over hearts and minds" during her recent trip to Iran. One might wonder what a historic leader of the American Civil Rights movement, might have in common with leading political circles in the Islamic Republic of Iran. But, with the June 20-26 visit to Iran by Civil Rights heroine and Schiller Institute leader Amelia Boynton Robinson, it became clear that they share a great deal.

Mrs. Robinson, who was invited to the country by IRIB (Islamic Republic of Iran Broadcasting), showed, in her numerous television and press interviews, that the power against which African-Americans and others were fought during the Civil Rights struggle in the United States, is the same as that threatening the world today with wars and destruction.

Many Iranian interviewers, as well as political figures she met, stressed their view that the racist policies perpetrated against African-Americans prior to 1965, are being repeated today, against the new enemy image, Islam. In this, Iran is being targetted specifically, as a member of the "axis of evil."

Mrs. Robinson was interviewed by Iranian TV on arrival in the early hours of June 21, and in the days following five more times, on different programs, all on IRIB national television, and once on IRIB radio, from Isfahan. She gave a press conference June 25, to members of the Association of Islamic Editors, with 20 persons attending. She also granted interviews to Farsi dailies (Farsi is the ment has enforced that decision ever since.

LaRouche had just received the security arrangements he required to visit Brazil in June, and the potential of a similar trip to Mexico, where he was to join López Portillo at the podium, panicked Wall Street. LaRouche's influence throughout Ibero-America is now greater than it was during 1982, when he was a folk hero for his support for Argentina in its Malvinas War with Great Britain, support which was premised on the foreign policy precedent of Secretary of State John Quincy Adams' famous Monroe Doctrine. At the height of the war, in May 1982, LaRouche gave a press conference at the Los Pinos Presidential residence in Mexico, following a meeting with López Portillo, and there proposed Argentina drop the "debt bomb" against Great Britain, as the only effective way to defeat British imperialism's drive to establish the precedent of NATO forces using out-of-area deployments to collect the debt of the Third World.

Attending the Guadalajara conference were a Brazilian delegation led by the former deputy commander of the Joint Chiefs of Staff, Adm. (ret.) Sergio Tasso, as well as the head of the Argentine National Identity and Ibero-American Movement associated with Seineldin, Maj. (ret.) Adrian Romero Mundani.

Persian, or Iranian, language), like Jamei Jami, and others.

Muriel Mirak Weissbach, of *Execu*tive Intelligence Review magazine, accompanied Mrs. Robinson, and took part in the interviews.

Mrs. Robinson was received by the Vice President in Communications and International Affairs of IRIB, Mohammad Honardoost; by Dr. Hossein M.M. Sadeghi, Dean of the Faculty of Judicial Sciences and Administrative Services; by Mrs. Soujaraee, Vice President of Iran for Women's Affairs; and by two women members of Parliament, Mrs. Rezazadeh and Mrs. Mosavari Manesh.



Reporters crowd Lyndon LaRouche at the conclusion of Whittier, California press conference.

LaRouche Keynotes Conference On Re-Emergence of China

Presidential candidate Lyndon LaRouche was the keynote speaker at a conference on China on August 17, sponsored by the Institute of Sino Strategic Studies (ISSS) in Whittier, California. The "Seventh Annual Conference on the Re-Emergence of China" was attended by scholars, intellectuals, and political activists from the United States, Taiwan, and the People's Republic of China.

LaRouche's speech was titled "China in a Changing World," and addressed the effects of the current global financial and strategic crisis on china, and the implications of this crisis on relations between the U.S. and China. His keynote was backed up by additional presentations by Schiller Institute scientific adviser Dr. Jonathan Tennenbaum on U.S.-China economic relations, and by its founder, Helga Zepp LaRouche, on the Eurasian Land-Bridge.

The Consul General of the People's Republic of China, Zhong Jian Hua, sponsored the pre-conference reception, at which he and Lyndon LaRouche gave remarks. LaRouche's keynote was delivered before approximately 70 members and guests of the ISSS He was introduced by the conference co-chairman, Dr. Wenji Victor Chang. The introduction of LaRouche, and statements from the other participants, showed the high esteem in which he is held among the conference organizers. Dr. Tie Lin Yin, for example, a leading advocate of peaceful Chinese reunification, referred to LaRouche as "the distinguished thinker," adding that, to him, there is no higher designation than that.

Participants in the conference included officials from the All-China Federation of Taiwan Compatriots; the Association for Relations Across the Taiwan Straits; the China Association for the Promotion of Culture; the Institute of American Studies of the Chinese Academy of Social Sciences; and the Alliance for the Reunification of China.

More than 10 news services with correspondents in California attended the Institute press conference preceding the opening of the meeting.

'They Inspired Martin Luther King' 'Boynton Weekend' Honors Heroes of Selma

Vivil Rights heroes Amelia Boynton Robinson and her late husband, Sam W. Boynton, were honored for their leadership in the American Civil Rights movement in a beautiful celebration Aug. 17-18, sponsored by the City of Selma, Ala. and the National Voting Rights Museum & Institute. Sam Boynton and Amelia-she is the vice chairman of the Schiller Institute and a world-renowned leader of the LaRouche political movement-pioneered the fight for voting rights for black Americans in Alabama, beginning in the 1930's.

Together, the Boyntons spent decades laying the

groundwork for the movement led by Dr. Martin Luther King, Jr.; they invited Dr. King to launch the famous fight in Selma which resulted in passage of the 1965 Voting Rights Act; and they supported him, when virtually everyone else shrank back in fear. The great danger and personal cost involved led to Sam Boynton's premature death, and left Amelia Boynton gassed and beaten on the "Bloody Sunday" march across the Edmund Pettus Bridge, on March 7, 1965.

Ironically, the two had never been honored in the city where they gave so much.

'Don't Know Our History'

Noted Civil Rights attorney JL Chestnut, author of *Black in Selma*, who worked with the Boyntons, addressed this in his tribute at the event, saying that Mrs. Boynton Robinson "has been honored all over the world, and all over the United States. But the question was, when will Selma get around to honoring Mr. and Mrs. Boynton?"



The reason for the delay, he said, is "because we don't know our history. There would have been no Selma Civil Rights movement except for S.W. and Amelia Boynton. . . . There is no way to measure the influence of the Boyntons on this town and nation. The Voting Rights Bill," which was the fruit of the Boyntons' work, "changed the world. . . . They inspired Martin Luther King. They inspired me."

The honoroing of the Boyntons was at last done right at the "Boynton Amelia Boynton Robinson holds plaque from Alabama Governor Don Siegelman.

Weekend," planned to coincide with Mrs. Boynton Robinson's 91st birthday. The LaRouche movement was there to give the hundreds gathered there a sense of the work which this brave woman has accomplished in the last two decades, as she has travelled the world to teach the universal lessons of the Civil Rights movement, and to campaign for the man who, as she said, has picked up the broken pieces of that movement and leads it today: Lyndon LaRouche.

Youth Festival

The weekend began Saturday with an all-day festival at Selma University, attended by about 300 youth, with sporting events, music, speeches, and food. The highlight was the unveiling of an exhibit by the festival organizers, Selma Councilwoman Bennie Ruth Crenshaw and Felecia Pettway of the National Voting Rights Museum. When complete, the exhibit will be housed in a waterfall monument being constructed

on the campus.

Mrs. Boynton Robinson addressed the Saturday gather-

At Selma University (left to right): Selma Mayor James Perkins, Jr., Boynton Robinson, Mrs. Anderson (wife of Rev. Anderson, who, with the Boyntons, was one of the "Courageous 8" that led the Selma Civil Rights movement), Selma Councilwoman Bennie Ruth Crenshaw.



ing briefly, urging the youth to exercise their rights and duties as citizens, by registering to vote and running for office-a message she has brought to youth across the U.S. over the past decade.

The event was covered by local television and the Selma Times-Journal, which ran front-page headlines for two days on the celebration.

On the Saturday

program, at Mrs. Boynton Robinson's request, this author-Schiller Institute vice president Marianna Wertzbrought greetings from Lyndon and Helga LaRouche, and then introduced Louis Donath, a Bundestag candidate with the LaRouche movement in Germany, who had travelled to Selma especially for the occasion, and who beautifully sang a German Lied for the assembled youth.

Political Leaders Pay Homage

The Sunday event was a four-hour celebration, with speeches honoring Mrs. Boynton Robinson by virtually every Selma politician, as well as the presentation of resolutions passed in her honor by both houses of the Alabama State Legislature. U.S. Congressman Earl Hilliard, whose district includes Selma-and who recently lost his primary reelection bid owing to an intense campaign against him by the Zionist lobby for his stand for an even-handed policy toward Israel and the Palestinians-also sent a message of congratulations, as did Democratic Governor Don Siegelman.

The recently elected Mayor of Selma, James Perkins, Jr., called the Selma-Civil Rights fight "our ground zero." "It takes a long time for ground zero to heal," he said. "We ought to consider ourselves blessed because God decided to use Selma as ground zero. I thank God that in every instance and generation, he raised up such leaders. Thank God for the Boyntons." Three members



of the Selma City Council then presented the Key to the City to Mrs. Boynton Robinson.

State Senator Hank Sanders read the State Senate resolution and the birthday message from Gov. Siegelman. Sanders, himself a noted Civil Rights leader, added that "Don Siegelman would not be Governor today except for Amelia Boynton Robinson, and he knows this."

The former Mayor of Tuskegee, Johnny Ford, who is now a State Representative, read the Alabama House resolution paying tribute to Mrs. Boynton Robinson. He promised to honor her similarly in Tuskegee, where she lives today, saying, "I would not be where I am today, were it not for Sam and Amelia Boynton." Ford also commend-

Festival organizers Bennie Ruth Crenshaw and Felecia Pettway unveil painting honoring the Boyntons.

ed her for her "work with Lyndon LaRouche around the world."

A Beautiful Soul

This author presented Mrs. Boynton Robinson to the audience: "As vice chairman of the Schiller Institute since the late 1980's. Amelia has travelled the world, joining with Lyn-

don and Helga LaRouche, her "adopted son and daughter," in fighting to bring the lessons of the American Civil Rights movement to a sorely troubled world. ... Amelia is the embodiment of what Friedrich Schiller called a 'beautiful soul' and a 'world citizen.'

"Wherever she goes-be it the wartorn Balkans, East Berlin just after the fall of the Wall, or to hundreds of classrooms across this nation, Amelia has inspired audiences worldwide with the fierce, yet loving determination which she brings to the fight for dignity and fundamental rights for all human beings. Thank you, Amelia, for all that you've given to the world."

At 91, Amelia Boynton Robinson is inspiring youth today with her courage and determination, just as much as she



fitting testament to their enormous contribution to humanity. -Marianna Wertz Amelia Boynton

Robinson with granddaughter Carver Boynton, in front of the Edmund Pettus Bridge, where she was gassed, beaten, and left for dead on "Bloody Sunday."

William Warfield: Now, and Always, A Beautiful Soul in Communion With God

William Warfield died early in the morning of Aug. 26, 2002. "Weep not; he's not dead; he's resting in the bosom of Jesus," wrote James Weldon Johnson, in "Go Down, Death!," a favorite poem recited—that is, sung-by Warfield, and introduced by him to his friends at the Schiller Institute. For the last several years, Warfield had demonstrated the art of poetry/music at the twice-yearly Schiller Institute conferences, usually prior to panels addressed by keynote speakers Helga LaRouche, the Institute's founder, and statesman and economist Lyndon LaRouche, a fierce proponent of the idea of the Classical method in poetic recitation.

LaRouche has often remarked, to the anger and dismay of many, that there is virtually no one in the United States that is actually capable of reciting poetry from a Classical perspective. Any confusion about what LaRouche meant, was eradicated by listening to a Warfield performance of Schubert's "Erlkönig," or of a Paul Laurence Dunbar poem, such as "When Melindy Sings." What did Warfield know, that very few performers, composers, politicians, and clergy, know today? He knew Beauty, and his soul abided in Beauty.

For Warfield, Beauty was not a goal, but a place where he resided. In a Fall 1995 *Fidelio* magazine interview, he stated, "Dr. Thurman once said, 'God created man in his own image, so that in the dead center of God's brain, there is this image of what man is; and at a point at which man reaches the full development of that image, then he will be on a par with the angels.' So that's what evolution is about! Man finally coming into the image of what man is to be. All of us are endowed



IN MEMORIAM

with that basic thing, and music is it. That's why we can *communicate*." Beauty was an Idea, that Warfield could communicate to everyone else, because he recognized that all other human beings that he addressed with his art, *had the same Idea of Beauty in them, as he, without realizing it.* The job of the Artist, like that of the statesman, is to make the people see that "the kingdom of God is within them" in the form of this natural response of the human soul, to Beauty.

Educating the Emotions

William Warfield specialized in educating the emotions of his audience, not playing "upon" or "to" their emotions. He was once asked by young participants in one of his many seminars conducted on the West Coast with the Schiller Institute: "How are you able to move us to tears, and yet not cry yourself?" "I *do* cry," Warfield replied. "I cry alone, as I work through the song, or the poem. Then, and only then, do I know how far I can go in the performance." Warfield knew that, in relation to a work of art, either his own or that of another, no artist can guide an audience through an epiphany that he has not himself attained.

Warfield was not only an artist but a soldier, having served, because of his extraordinary command of the German language from his teens, as an Army Intelligence officer in the Second World War. "There never has been a time like Dec. 7, 1941, in the history of our country-there certainly has never been anything like it since. In a space of an hour on that Sunday afternoon, an entire nation of millions of Americans were united in a single purpose. And it was a unity of purpose that was sustained over the next three and a half years. Families were broken up, educations were interrupted, hundreds of thousands of people left home, many of them never to return. But somehow the personal problems all merged into a larger mission, with a feeling for God, flag, and country that is probably beyond the ken of people who weren't there. If it can't be comprehended emotionally, it can't be comprehended at all," Warfield wrote in his autobiography.

A Singular Unity of Idea

The subordination of artistic craft, and of his own physical infirmities, to the purpose of creating a singular, unforgettable unity of Idea in the mind of his audience—that Warfield did. You always knew exactly "what he was talking about," even if you were not very familiar with German, or Italian, or with the Classical repertoire. This dedication to Truth-telling was exactly the effect that Warfield sought to deliver in his art, and in his teaching, which was also for him a practice of art. He was a fierce combatant for the truth, a soldier who refused to slow down, who was always on the move, always on the offensive, finding something *new* to say every time he sang and recited, or told one of the hundreds of jokes and stories that gave him a way of practicing his craft every hour of the day.

LaRouche, of the same World War II generation as Warfield, has often spoken to his younger colleagues, and to the generation of youth now in motion around his campaign, of the "Pearl Harbor effect," of a sudden, complete change of outlook and behavior, of a "revolutionization" that can happen in a moment. Many other veterans of that conflict, share the same quality, though perhaps not the same depth of commitment to action based on it, as LaRouche and Warfield. The willed success to achieve a noble mission, was what makes Warfield, and LaRouche, great warriors on behalf of the dignity of man, and was the quality that caused them to join together on the board of the Schiller Institute.

When, in 1988, LaRouche and his associates began a campaign to lower the absurdly high, and distorted, concert hall and operatic stage singing pitch, from A=440 and higher, to the original "Verdi tuning" at A=430

(middle C=256), Warfield was one of only three artists to answer the call for the campaign. "I mailed letters to several dozen leading American singers, offering to send a copy of the Schiller Institute's just-published Manual on the Elements of Tuning and Registration, to endorsers of LaRouche's C=256 petition campaign," writes Manual co-author Kathy Wolfe. "Dr. Warfield was one of only three people who took the trouble to write back. Bill's enthusiastic letter, which Marianna Wertz may still have ... said how important he thought it was, for the future of young musicians, to prevent the pitch from rising further. It is also important to note that Bill Warfield's work first came to the I.C.L.C.'s attention in the early 1980's. owing entirely to LaRouche's urging that we study multiple settings of Lieder (German art songs), by many Classical composers, inclusively those by 'lesser' composers such as Karl Loewe. A 1983 search for recordings of Loewe songs, turned up an old LP by William Warfield, and little else. Bill was thus distinguished as one of America's most scholarly Lieder singers."

Warfield was central to the work of the Schiller Institute in founding the National Conservatory of Music Movement, started in 1993 in memory of singer Marian Anderson, who died that year. From that time, increasingly, Warfield had identified himself with the Institute's work, and had also



Dr. Warfield recites Paul Lawrence Dunbar's "When Melindy Sings," Schiller Institute conference, February 1998.

endorsed his friend Lyndon LaRouche in his campaigns for the Presidency of the United States.

Immortal Discoveries

LaRouche and Warfield had been scheduled to work together with a group of students in California during mid-August. These were not simply "music students," but recruits that are working on the LaRouche Presidential campaign's mission to reverse the descent into Hell of the U.S. and of the rest of the world. LaRouche wrote:

"You and I, like Amelia Boynton Robinson, refuse to be retiring people. Let us speak of such matters as musicians who teach their instruments to sing, rather than merely being played. Let us speak of that art which never says, 'look at me on stage,' but, instead, creates a living idea and drama within the imagination of its audiences.

"We must make such matters clearer to those who, being of the postwar generation, who, because of the circumstances in which they lived until now, tend to be foolish. For their sake, let us, according to our mission in life, turn our attention to Brahms' *Vier Ernste Gesänge,* which has been, for me, during most of the past half-century, as, I believe, for you, his virtual last will and testament. When properly done, Brahms' living soul so occupies our imagination, that we are astonished, after that, to see a singer and accompanist standing on stage.

"Those discoveries of universal principle which uplift the human condition, are immortal, since the original act of discovery lives afresh in the imagination of each person who recreates that act of discovery in his, or her own, sovereign creative powers of mind. By bringing the greatest discoveries of science and art to life today, we hear the joy expressed by those long past, whose immortal dreams reach us, and move us today.

"We must persuade those assembled on this occasion, and others as far as we can reach, to learn this lesson. It is important to master the art, but it is sublime to inform and enlighten the soul."

-Dennis Speed

We know a lot about how the beautiful, ancient Classical Greece collapsed, especially from the writings of the founder of scientific history-writing, Thucydides of Athens, who lived from 460 to approximately 404 B.C. Now, he describes also the pre-history of the Peloponnesian War, which were the wars of Greece, and especially Athens, against the Persians, which lasted from 500 to 479, and then from 470 to 448 B.C., ending in the Callias peace between Athens and Persia. Now, in these wars, Athens, which, after all, is the cradle of European, and therefore, also, of American civilization, had to assert itself in many ways. For example, in September 490, there occurred the famous Battle of Marathon, where the military reformer, Miltiades, defeated the Persian army, which was three times more numerous, through a double-flanking operation. And then, the famous story was, that one soldier ran all the way from Marathon to Athens to report the victory. And still, nowadays, people commemorate this with the marathon runs.

Athens became

the pioneer for all Hellas after the victory over the as-yet unconquered Persians, and was on its way to becoming a political superpower. In 483, it engaged in the construction of a large fleet of 200 ships, and there, especially Themistocles, who also was involved in the port of Piraeus, E was instrumental.

In September 480 B.C., came the victory of the



Pericles (495-429 B.C.)

Greeks over the Persians in the naval battle of Salamis. On the advice of Themistocles, Athens did not take revenge against those Greek states which had cooperated with the Persians. This was a very wise decision, because that is how you get peace—that eventually, you have a peace plan like that.

The result of the ≜ Persian Wars was, that the Persians gave up

their intention to conquer, and this gave Greece the political and spiritual freedom to save its mental life. In 478, Athens was asked by the Ionians to become their protector against the Persians. In 477, they founded the Attic Maritime League against the danger of the Persians. This was basically an alliance between Athens and the Ionian cities, which then had to pay tribute. Delos became the seat of that league, and all members had equal voting rights.

> In the meantime, Athens became the strongest economic power, and that led to an increasing alienation between Athens and Sparta, which also was manipulated by the Persians. In 470, the son of Miltiades, Cimon, continued the war against the Persians, as the head of the fleet of the Maritime League. And in 467-465, there was a double victory by Cimon in Eurymedon in



Thucydides (460-*c*. 404 *B.C.*)

southern Asia Minor, over the fleet and the army of the Persians. The tensions with Sparta grew.

And in Athens, the process of democratization continued, because Athens was the birthplace of the famous democracy. In 462, Pericles and Ephialtes made a motion that all political decisions and powers should be given to the council, the commis-

sions, the jury courts, and the people's representatives. In 458, you had the completion of democracy, because the so-called third class could participate in the political process, and there was the stripping of the power of the oligarchy. In 460-457, there was the construction of the long wall in Athens, and Athens became the largest fortress of Greece.

Sparta got involved in various alliances, for example, with Thebes. And Athens continued to annex Boetia, Locris, and Phocis, and eventually became hegemonic in central Greece.

In 456, there was the relocation of the bank of the alliance to Athens. And in 449, there was the double victory of Athens over the Persians at Salamis on Cyprus.

From the League to the Empire

In 444 B.C., at the already-mentioned Peace of Callias between Athens and Persia, they then moved to the transformation of the Attic Maritime League,

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into the Attic Empire. As a matter of fact, after the peace with Persia had been concluded, this military alliance had become, actually, superfluous. So, at that point, they should have just abandoned it. But they transformed it into the Attic Empire, and from then on the allies had to pay tribute, as before. Under Pericles, who was annually elected as the Strategos (Commander), which was an important position, Athens continued on its way to democracy. But, as Thucydides wrote in his book, in reality, Athens was only a democracy in name: In reality, it was a Monarchy of the First Man.

However, it was a mixed situation, because, on the one hand, you had this transformation of Greece into an empire; but, you had, at the same time, this beautiful evolution of thought and Classical culture. For example, the cultural circles around Pericles, were Anaxagoras, Hippodamus, Sophocles, Phidias, and others.

But, in the meantime, the members of the Attic Empire got reduced to sub-

jects. In 425, more than 400 city-states were members. The big problem was, that the wars against the Persians had gotten more and more under the total leadership of Athens, and the Athenian Empire, and Athenian imperialism emerged.

At the moment of the collapse of the Soviet Union, between 1989-91, George Bush, Sr. declared the New World Order, and basically, the point was to redefine the East-West relationship, and not to just continue with the policy, when there was no longer any enemy. And, then they decided that they needed an enemy, for empire controls, and that Islam should be that new enemy.

Now, the allies, whom Athens had been the protector of against the Persians, became the subjects, and had to continue to pay tribute. The Gulf War, which took the momentum away from German unification, cost \$60 billion, most of which the allies had to pay.

There was a reversal of the relationship of the protection and the faithful-

President George W. Bush with the "Vulcans": architects of the utopian drive for empire, National Security Adviser Condoleezza Rice, Defense Secretary Donald Rumsfeld, Vice-President Dick Cheney.

ness, and Athens developed the reputation of a tyranny. Sparta, which never had any democratic reforms, and where mainly an oligarchical system remained continuously, pursued any alliance to break this power. Thucydides, in his book about the Peloponnesian War, which lasted from 431-404, describes how, out of a limited war, beginning between Athens and Corinth, there arose a big war between Athens and the Peloponnesian alliance led by Sparta.

The Melian Dialogue

The island of Melos had remained neutral for several years; and then, Athens demanded that Melos should become an ally. In reality, they wanted it to become a vassal, and Thucydides gives a very fascinating account of this.

The Athenians sent negotiators to Melos, and then the Melians said, "Well, you say we can have a calm discussion; that is fine. But, why do you then immediately go to war with us? You obviously insist on having the last word, anyway. If we don't capitulate, it means war. If we capitulate, it means slavery."

The Athenians said, "Don't speculate about the future. We could make the point, but we don't, that our victory over the Persians has given us the right to rule. But the point is, that only among people with the same power, is there right and law. But the powerful does what he wants, and the weak has to obey."

The Melians said, "Since you don't want to listen to law, and argue with utilitarian arguments, consider this: You could be defeated some time, and then your brutality could be taken as a model, and you could be treated in the same way."

The Athenians said: "From a power that rules over others, like the Lacedaemonians, we have nothing to fear." (The implication is, that oligarchical systems always get along very well.) "What we have to fear much more, is a rebellion of the underlings in our own country. We are here to subjugate you, and discuss how this can be done to both our advantage."

The Melians said, "How can slavery

be as advantageous for us, as for you, the rulers?"

The Athenians said, "For you, it is more advantageous to become a subject, than to die; and for us, it is a plus, that we don't have to kill you."

The Melians said, "Can we not stay neutral?"

The Athenians said, "No, because your adversity damages us less, than your friendship. Because this would make us, in the eyes of our subjects, weak. And your hostility, on the other hand, is a sign of our power."

The Melians said, "Since you seem not to hesitate in the face of anything, to impose your power, and are willing to throw the independent countries into danger, would it not be the greatest shame to capitulate, rather than do everything to resist?"

The Athenians said, "Not if you think. The point is not to prove your bravery, but to exist or not. And not to approve someone who has so much more power than you."

The Melians said, "But there is hope, that luck is sometimes on the side of the weaker."

'What Counts Is Power'

The Athenians said, "Yeah, sure. Hope! But if it promises golden mountains, you only realize through damage, how treacherous it is. Your fate hangs by one hair, so don't believe in miracle cures."

The Melians said, "But God will not let us down, since we are fighting for a just cause and the Lacedaemonians (Spartans) will help us."

The Athenians said, "Ha! God and the whole world is on the side of the strongest. This is a universal law for all times. And you would act in the same way, if you had the power."

Melians: "But we can count on the Lacedaemonians, since they can count on our friendly attitude."

Athenians: "In war, what counts is not attitude, but power! The Lacedaemonians see that more than others. Your forces are too weak to resist. Don't fall into the trap of honor, which so often has brought ruin to people. Many have been seduced by the nice sound of the word 'honor,' and have thrown themselves into self-destruction, through their own stupidity. Be reasonable! Don't think your honor is at stake, if you give up resistance against a superpower. You still have the choice between war and security: Don't let your ambition let you take the wrong choice."

And with that, the Athenians left.

The Melians had a meeting among themselves and discussed that they could not give up their community, which had lasted for 700 years. "We trust in the gods, who have protected us, so far; and the help of man, the Lacedaemonians, that we can stay neutral. And we will ask you Athenians, now, to retire from our country."

The Athenians said, "You alone seem to regard the future as more important than what is front of your eyes."

And they immediately began to launch hostilities against the Melians. After several military operations, the Melians had to surrender to the Athenians, who immediately put to death all the grown men, whom they took, and sold the women and children for slaves, and subsequently brought in their 500 colonists and inhabited the place themselves.

Thucydides then describes how, after the death of Pericles, the demagogues Cleon and Alcibiades changed from a defensive strategy, to offensive operations-a kind of early "preemptive war" conception-which he characterizes as one of the reasons for the catastrophic development of the war, from an Athenian point of view. The description of the campaign against Sicily is one of the high-points of Thucydides' book. Supposedly, the Athenians came to the help of the allied city of Segesta against Selinus, which was allied with Syracuse. In reality, they just wanted to make Sicily a colony. They lost both the fleet and the army, and the surviving Athenians became slaves.

This defeat marked the decisive change in the whole war. In 405 B.C., the Spartan military commander Lysander was able to defeat the last Athenian fleet. The power of Athens completely collapsed and Lysander moved, in 404, into Athens.

Democracy and Imperialism

So, the famous democracy in Athens was completely imperial. It had a system based on slavery, and Plato was completely critical of it, and said that democracy is just the other side of the coin of tyranny. And, it is very interesting, that the famous tragedian Euripides wrote a play, The Trojan Women, which he performed, in essence, at the height of the Peloponnesian War, when Athens gave its imperial ambitions its last impressions, with the Sicilian campaign, in 415. Euripides was completely against this war, and portrayed the war in its full horror, from the point of view of those who were defeated. Already, in earlier years, he had warned: If, in any decision to go to war, everybody had the image of their own death before their eyes, Hellas would not be torn apart by the insanity of war.

And maybe that should be given as advice to some of these "chickenhawks," today.

It was a tragedy that Classical Greece destroyed itself, by becoming an imperial power. And would it not be a total tragedy, if the United States, which once was "the beacon of hope, and the temple of liberty," should go the same way? And, is it not alarming, that elder statesmen make this parallel: They say, that the Peloponnesian War ruined, first, Athens, and then all of Greece. Today, the danger is that the United States, as the only remaining superpower, is creating the impression with China, with Russia, and other nations, that nothing is more important than military power.

So, that is where we are at, and people in the whole world know it. People know that the United States is becoming an empire. And they also know, that what is at stake is the entire body of international law, as it developed since the Peace of Westphalia in 1648. Bush, the President of the United States, said, explicitly, that he is for international law, *only if* it is appropriate for our time, and *only if* it is in the interest of the United States. Beware of the Athenians, Mr. Bush!

—Helga Zepp LaRouche

ART •

Leonardo da Vinci: Painter of Movement

The impact of Leonardo's artwork on us today reproduces an effect which he himself experienced when looking at the dark opening of a grotto, and which he described in the following way:

"After a long moment, two strong feelings overwhelmed me: fear and desire. Fear of the dark menacing grotto, but desire to see if didn't enclose some extraordinary marvel" (Codex Arundel, 155r). This fear "to enter" in the mind of Leonardo emanates from the extraordinary sense of motion which many of his works express, and have become like his signature. It is this powerful impression which harasses our sense-certainty, because it threatens to plunge us suddenly "into a land from which no one returns," i.e., to confront us with our own creativity,--- and very often, it is a piece of land barely worked.

But, where did his "vision" of movement came from? Through his readings of Diogenes Laertius, Leonardo might have been inspired by the pre-Socratic philosopher Heraclitus, for whom "movement creates all the harmony of the world."

During his first Milanese period, by deciphering Latin texts with the aid of Piero della Francesca's pupil Fra Luca Pacioli, Leonardo might have been introduced to the works of Nicolaus of Cusa.

For Cusa, the world is nothing but the development (unfolding) ("ex-plicatio") of the power of envelopment (wrapping-up) ("com-plicatio") of a God, Who is eternity and embraces the succession of all the instants of time. For Cusa, "complicatio" and "explicatio" coincide in one single movement, which is the passing from potential to action, from unity to multiplicity.

Starting from this metaphysical comprehension of movement, Leonardo defined a far-reaching concept of time and space:

"Describe the nature of time as distinguished from the geometrical defini-



tions. The point has no part; a line is the transit of a point; points are the boundaries of a line. An instant has no time. Time is made by the movement of the instant, and instants are the boundaries of time" (Codex Arundel, 176r).

He says, further, "A point is that which has no center. It has neither breadth, length, nor depth. A line is a length produced by the movement of a point, and its extremities are points. It has neither breadth nor depth. A surface is an extension made by the transverse movement of a line, and its extremities are lines. (A surface has no depth.) A body is a quantity formed by the lateral of a surface and its boundaries are surfaces" (Codex Arundel, 159v).

But especially, his optimistic love for the dynamism of a perpetually changing, harmonic world would nourish Leonardo's extremely daring analogical intuitions and hypotheses, which today we call "the work of a genius." For example, he states: "The movement of water within water proceeds like that of

FIGURE 1. Leonardo da Vinci, "Star of Bethlehem," c. 1506.



FIGURE 2. "Nike Unbinding Her Sandal," Acropolis, Athens, c. 410-407 B.C.



FIGURE 3. "Nike of Paionios," c. 420 B.C.

FIGURE 4. "Charioteer," Delphi, c. 475 B.C.

air within air" (Codex Atlanticus, 116r).

Many of you might have had the occasion to admire the beautiful studies of eddies of water, those vortices sometimes stupidly identified as the "symbolical form" of his worldview. One should note that a spiral vortex represents exactly the type of "stable movement" which caught Leonardo's attention, precisely because it represents a higher idea of harmony, rather than a form as such! Leonardo catches that spiral action in the flight of birds, in the pathway of the blood running through the valves of the aorta, or in the forms of certain plants, such as the "Star of Bethlehem" [SEE Figure 1]. Not forgetting the movements of dancers, or the cascades of falling, curly hair.

In this, the aesthetical act becomes a feisty encounter, in which intellectual approach and poetical intuition meet science and art. Each observation becomes a unique opportunity to unravel and communicate the thrill of the "primal movement," enabling the artist "to render visible the invisible." Concentrated on the forms of movement and the movement of forms, the painter becomes a "morphologist," the scientist who pins down graphically the neverending transitions, the "rhythms" or "mutations," of movement, as he calls them. For example, a simple anatomical study becomes an eight-phased "kinetic" decomposition of a double movement: the one of a rising arm with a rotating torso.

But, beyond the movement of bodies, Leonardo tries to express what he calls "immaterial movements," which he arranges in five categories. The first "is called temporal, because it deals exclusively with the movement of time, and embraces all the others." The others are the propagation of images by light, those of sound and odors, the movement of the "spirit," and the movement that animates "the life of things" (Codex Atlanticus, 203v-a). In love with and aware of the infinite richness of the universe, Leonardo is unsatisfied with simple mathematical rules, or linear perspective, against which he revolts.

How then paint this movement, this breath of life? Formally, it seems totally

impossible, since as soon one catches a form, life escapes from it, as from a butterfly pinned to a little cushion! To succeed, sculptors, poets, and painters have to create an irony, an ambiguity that defines an in-betweenness, which Lyndon LaRouche has defined as "midmotion." If you analyze a series of fast shots of a running horse, most of those shots will show you a horse that appears to be collapsing. So, don't look at the idea of mid-motion as a sequence of a linear movements, because it is only those precise moments where motion is at a point of inflexion, which evoke in our mind the maximum potential action.

Therefore, I propose to refine even more that concept, by adding the word "change," to make it "mid-motionchange": the point of inflexion where an infinity of preferably unforeseeable movements appear as a credible reality to the puzzled viewer, who is trying to find out what *is going to happen*. And that is the great secret of the best of Greek sculpture, as we see, for example, in the victory goddess representation, "Nike Unbinding Her Sandal" [SEE Figure 2, and front cover, this issue], or the Nike statue moving freely in air, like the


one presently at the Bonn exhibit on the Greek Classics, where we're not able to see whether she's going up or down, right or left [SEE Figure 3]. It shows us clearly how to use the motion of the body to express the motion of the soul.

But, if we now look at the "Charioteer of Delphi" [SEE Figure 4], we see that, although the figure looks static, it is completely "mid-motion-change," because it is the single instant before the charioteer sets the horse into motion to run the race, as you can read in the expression of his eyes. So, don't get fooled by the forms, but look instead to the "idea."

So, the isochronical nature of sculpture and painting obliges the artist to use a supplementary trick: by placing several images in analogy, opposition, or parallelism, the artist presents a "metaphorical paradox," which forces the mind of the viewer to reconstruct the unity of movement that makes the whole coherent.

The discovery of that "idea," as a result of the movement of our mind, enables us to meet, that is, to enter into a dialogue, with the creative spark of the artist and to accept the gift he has given us.

'Saint Jerome'

Let us look together at Leonardo's "Saint Jerome," which hangs in the Vatican [SEE Figure 5]. To express the powerful battle of Jerome facing temptation in the desert, the artist has painted him kneeling in prayer. But this tranquility of prayer has been brutally disrupted by the saint's interior struggle.

The dramatic movement of his weak body is organized by two poles of energy: his left hand deploys a gracious but effortless gesture, which underscores the expression of the face, inclined to God's will. Meanwhile, at the complete opposite, his right arm is about to violently strike a stone against the pectorals of his chest, whose muscle fibers are in extreme tension.

The living force we experience derives from the stark opposition of these two radically different movements. Without the tension of the one, there is no grace in the other.



This paradox acquires a supplementary dimension, thanks to the lion. In general, the lion was usually depicted in paintings as the incarnation of domesticated force, since Jerome pulled a thorn out of its paw, making it into a friend. Here, the story is different. Confronted with Jerome's intense struggle against the bestiality of earthly temptation, the lion feels threatened; he rises up, roars, turns his head around, and is at the point of running away, since he might be hit by the stone! One has to note here, that Jerome is right in the middle of interior battle, in between dropping the fight, or winning it, which throws another challenge to the viewer.

The 'Mona Lisa'

To develop the concept of "immaterial movement," one cannot escape dealing with the "Mona Lisa," which he completed in 1505 [SEE Figure 6]. This painting became, not only the symbol of Leonardo, but of Classical art itself.

Now, up to the early 1970's, every modern painter had to engage himself in a symbolic rape of the "Mona Lisa,"

FIGURE 5. Leonardo da Vinci, "St. Jerome," c. 1483.



in order to get accepted as an artist. For this reason, it has become very difficult to talk about this painting, because its image is so familiar.

But, can you imagine a greater difficulty, than to express the "movement of the soul," by having a sitting model almost totally unmoved by muscular agitation? A drawing done by Raphael from Leonardo's first outline, gives us an idea of the initial concept, which Leonardo changed over several years [SEE Figure 7]. The "Ginevra de' Benci" style of portrait of 1474 [SEE Figure 8], was superseded thirty years later, by a face filled with enigmatical paradoxes: one side of the mouth smiles, the other less so; one eye is serious, the other is amused; one eye looks at you, the other sees beyond you; etc. But, that is just the start. Contrary to the initial outline, the balcony of the loggia is now lowered, and the perspective has been developed into incredible dimensions, with a whole series of unequal horizons that end up being lower on the left, and higher on the right.

Leonardo provokes our minds here, by forcing us to reflect on the mobility of our eyeballs. Don't we shape perspective with our brains when we point these outposts of our brain, the eyes, in any direction? Several tricky explanations have been cooked up to "explain away" this paradoxical dimension of the landscape.

For example, it is said that during the time he was conceiving the painting, Leonardo was working on changing the path of the Arno River, which in prehistoric times possessed two mountain lakes that later disappeared due to erosion. So, here they are! And Mona Lisa becomes some mother-earth goddess charged with regulating the water; that is, the fertility of the earth. Another "state of denial" has come from a smart fellow who said that there is no problem, no ambiguity, so don't worry: Mona Lisa's torso is hiding a huge dam of Leonardo's invention, which is leveling the water from one basin to the other!

We get a far more interesting lead by looking at some Chinese paintings, like one called "Festival to Bring Rain" of



FIGURE 6. Leonardo da Vinci, "Mona Lisa," completed 1505.

FIGURE 7. Raphael Sanzio, "Drawing after the Mona Lisa."



Dong Yuang, painted at the end of the Tenth century, that is, nearly five hundred years before Leonardo [SEE Figure 9]. It is interesting to know that the Chinese word for "landscape" is "mountainwater." Leonardo's geological reflections on the interaction of earth, air, water, clouds, and rain, could have indeed made him appreciate such a type of painting.

The inbetweenness of Mona Lisa's smile, combined with the inbetweenness of Chinese-inspired, multiple-horizon perspective of the landscape, creates such a powerful movement, that it is capable of driving all the Aristoteleans crazy, while it will continue to intrigue open minds for many future generations. We can note that even the great Raphael did not advance beyond these discoveries, and that Leonardo remains to this day the metric of this development. Contrast this to its opposite, the pre-Baroque performances of Michelangelo, which were given—at the expense of Leonardo!-the exclusive title of "the inventor of movement in art." In a deliberate effort to create absence of movement in the mind, this art, which became a propaganda machine for the Counter-Reformation, appears as a theatrical display of wax corpses. It is sad that the discovery of the monumental "Laöcoon" statue in 1506, for example, provided Pope Julius II the excuse to impose Roman art standards as the "party line," obliging artists to conform, and to use muscular masses as visual support for literary allegories and symbolical fantasies, in opposition to the true principle of metaphor.

While Leonardo never openly criticized this current, it is hard not to think of the Sistine Chapel, when one reads, "do not give an exaggerated volume to all the muscles of the figures," since "you will more succeed in representing a bag of walnuts than a human figure" (Codex Madrid II, 128r).

The good news is, to realize that Leonardo painted only about thirty paintings, of which only fourteen authentic ones remain today. With these few paintings, he changed the world. So, if every person reading this were to make only one painting of decent quality during his remaining lifespan, then a new Renaissance will not be just mere words.

—Karel Vereycken



FIGURE 8. Leonardo da Vinci, "Ginevra de' Benci," c. 1474-1478.

FIGURE 9. Dong Yuang (active 947-970), "Festival to Bring Rain."

All Hands On Deck!

which the Emergency Infrastructure Program for the U.S., Democratic Presidential pre-candidate Lyndon LaRouche "presents the President and the incoming [108th] Congress with the emergency program they must immediately adopt" in order to reverse the economy's slide into depression. LaRouche made this statement at Labor Day, after forecasting that September 2002 would be a "hellish" month for the economy-a forecast that proved accurate. In issuing this report, the candidate was replying directly to President George W. Bush's do-nothing, "recovery is just around the corner," economic summit meetings held in Waco, Texas in August.

LaRouche's focus is economic infrastructure, the skeleton of the economy, whose strength and technological level determines its potential productivity more than any other factor; which can not be imported from cheap-labor markets abroad; and which includes, under the heading of "soft infrastructure," the educational and health-care systems that are the marrow of the productivity of the the country's labor force. Economic infrastructure is never built by the promises of free-trade, private-enterprise hucksters, or successfully created by multinational corporations. It is constructed and reconstructed only by government-directed economic mobilizations, exemplified for the 20th century by the recovery programs of Franklin D. Roosevelt's Presidency.

FDR's recovery from the Great Depression is LaRouche's historical precedent for practical action against the economic disaster now. But, he emphasizes that there are qualitative features of the current economic collapse which make it worse than the 1930's Depression. It requires qualitatively bigger thinking, on the transformation of the Earth's regions by infrastructure programs at the frontiers of technology.

Ammunition and Forces

The infrastructure of the U.S. economy—not being a cheap import—is in graver collapse than the declining economy as a whole, as shown by a series of sector studies presented in the Report following LaRouche's policy statement on "Science and Infrastructure." The candidate jokes that the airlines are "belly up-not a recommended position to fly!"; the railroads have disappeared to the point the citizen no longer considers them a means of transport, while the Amtrak routes that remain are being cut by Congress and President. These two disasters alone, LaRouche argues, if not vigorously reversed, will soon break the national economy into non-viable pieces; it is therefore the reversal of the rail and air sector disasters on which the report is concentrated.

In issuing the "Emergency Program," LaRouche is not advising the President and Congress, but leading them. He has the greatest possible credibility—"electability"—on the imminent breakdown of the economic system, since he forecast it in the mid-1990's, and then worked to catalyze wide international support for his New Bretton Woods monetary system and Eurasian Land-Bridge infrastructure policy. He confronts a government in denial, and a Congress unable to debate serious economic recovery proposals, despite the dismay of the American citizenry.

LaRouche also has a rapidly growing national Youth Movement as the leading edge of his Presidential campaignhundreds of college-aged supporters who are taking the "Emergency Program" to Congressional and Legislative offices and debating it on campuses nationally. He is known among elected officials across the country for his 25year record of fighting every form of "de-regulation," the dominant legislative snake-oil which has decimated America's once-strong infrastructure. He has EIR expert studies of rail, air, water management, power, and other reconstruction needs; and the work of Hal H.B. Cooper, one of the world's



most experienced and technologically optimistic rail transport consultants. The Report includes a transcript of an October webcast by Virginia LaRouche Democratic candidate Nancy Spannaus and Cooper, in which detailed plans for rail development corridors all over North America, from Alaska down into Central America, are presented.

Space Is Also Infrastructure

In Lyndon LaRouche's "Science and Infrastructure," the most fundamental argument the candidate makes for the necessity of these recovery measures now, is that the U.S. economy is operating far below breakeven, and has been sunk below economic breakeven for decades of deregulation and speculation. His treatment of the urgent practical question of profit-how can the economy as a whole return to producing a surplus?---ranges from the most detailed examination of wasted time and cost in air travel and road travel. relative to rail travel for distances under 250-300 miles; to the most general concepts that enable the citizen to understand real, physical economics. "The two accumulations of physical capital which are . . . overlooked or greatly underrated," writes LaRouche, "are governmental contributions to the development of basic economic infrastructure, and the development of . . . artistic and scientific cultural development of the members of society"—measured by education meeting the standards of Classical culture.

The society has to invest in crash programs of infrastructure reconstruc-

tion, at higher technological levels and with scientific breakthroughs, not just to create jobs—but, so that the cognitive productivity of the workforce, its real technological understanding, rises enough to pull a shattered economy above breakthrough. This was the effect of the mobilization for World War II in the United States, which was qualitatively different from the effect of the programs of the New Deal. This is the qualitative effect LaRouche demands in an infrastructure credits and jobs program—from the construction of new continental Land-Bridges, to the use of a revived space colonization program as an infrastructural model. And, the report spells out the U.S. role in the Great Projects needed on every continent—nowhere more than in the broken-down economies of North America.

This is the only economic recovery program going in American politics from the only political leader willing to tell the truth about the "worst global depression in living memory."

—Paul Gallagher

The Transcontinental Engine of Development

Between 1863 and 1869, the United States, even while engulfed in a war to defeat the British- and Hapsburgsponsored Southern secessionist insurrection, launched and completed the most stunning engineering and economic feat in modern times. With the completion of the Transcontinental Railroad on May 10, 1869, the United States was consolidated as a continental republic. A series of technological revolutions had been achieved along the way, including the construction of the first-ever rail tunnel through a mountain range.

Noted historian Stephen E. Ambrose brings this Transcontinental Railroad project to life in his absorbing book, Nothing Like It in the World. Although Ambrose does not demonstrate a self-conscious understanding of the American System of Political Economy, which was the basis for the transformation of the United States into the greatest agro-industrial power on the planet in the hundred years following the American Revolution, he can be easily forgiven, as his book tells the story of the American System in practice (and hence, incidentally, "warts and all"). For that reason alone, the book is must reading for anyone serious about understanding what Lyndon LaRouche calls the "American intellectual tradition."

Lincoln's Railroad

One stunning fact stands out among the many wonderful stories contained in Ambrose's account of America's "Greatest Project": the architect of the Transcontinental Railroad, beginning in the 1840's, was none other than Abraham Lincoln. Before Lincoln ever had the opportunity to ride the rail, he had conceptualized the strategic significance of a continental railroad to join together the entire republic from the Atlantic to the Pacific. He became America's leading railroad lawyer, before he entered the United States Congress.

When the War of Southern Secession erupted early in his Presidency, Lincoln did not flinch in his commitment to launch the Transcontinental Railroad project—even as the Union prosecuted the war, even in the darkest moments of combat.

Other leaders of the effort were likewise heroes of the Civil War: General William T. Sherman was one of the leading Californians in the pre-Civil War period to promote the importance of the Transcontinental. He and his brothers invested their personal fortunes in the Union Pacific. General Ulysses S. Grant was another vital promoter, both as soldier, and later as President.

Less known, but equally heroic in the effort, was Gen. Grenville Dodge, described by Ambrose, probably accurately, as "America's greatest railroad builder." General Dodge was the head of Gen. Sherman's "pioneer corps" of 1,500 engineers, who rebuilt bridges and rail lines that had been



Nothing Like It in the World: The Men Who Built the Transcontinental Railroad 1863-1869 by Stephen E. Ambrose New York, Simon & Schuster, 2000 431 pages, paperback, \$16.00

destroyed by the Confederates as they retreated south during the Western campaign. He was under immense pressure from the leading investors in the Transcontinental Railroad, to quit the Army and become chief engineer of the Union Pacific, before the war ended. He refused—even after he was seriously wounded on the eve of Sherman's occupation of Atlanta. Dodge stayed in the Army, leading the effort to suppress Indian uprisings in the West, until the peace had been secured. Then he went to work at the UP.

A Republic Transformed

There are many extraordinary stories embedded in the Transcontinental Railroad saga. Chinese immigrants were integrated into the American system by playing a vital role in the UP construction. Their role is vividly conveyed by Ambrose. Railroad construction provided one of the greatest sources of jobs for veterans of both the Union and Confederate armies, immediately following Lee's surrender. The Transcontinental not only provided decent paying employment for the armies of unemployed vets, but was the kind of project that helped heal the wounds of civil war, literally integrating the young men of the North and South in a way that no other "healing process" could have.

Ambrose also deals, in excruciating detail, with the machinations of the men who financed the railroads—from the bedrock patriots, typified by the Shermans, to the crassest speculators. Although Congress passed a succession of laws that provided loan guarantees, land grants, and other regulations and incentives, the project was almost exclusively privately financed.

In his Epilogue, Ambrose beautifully

sums up how the Transcontinental transformed America: "Of all the things done by the first transcontinental railroad, nothing exceeded the cuts in time and cost it made for people traveling across the continent. Before the Mexican War, during the Gold Rush that started in 1848, through the 1850's, and until after the Civil War ended in 1865, it took a person months and might cost more than \$1,000 to go from New York to San Francisco.

"But less than a week after the pounding of the Golden Spike, a man or woman could go from New York to San Francisco in seven days. That included stops. So fast, they used to say, 'that you don't even have time to take a bath.' And the cost to go from New York to San Francisco, as listed in the summer of 1869, was \$150 for first class, \$70 for emigrant. ...

"Freight rates by train were incredibly less than for ox- or horse-drawn wagons, or for sailboats or steamers. Mail that once cost dollars per ounce and took forever, now cost pennies and got from Chicago to California in a few days. ...

"Together, the transcontinental railroad and the telegraph made modern America possible. Things that could not be imagined before the Civil War now became common. A nationwide stock market, for example. A continent-wide economy in which people, agricultural products, coal, and minerals moved wherever someone wanted to send them, and did so cheaply and quickly. A continent-wide culture in which mail and popular magazines and books that used to cost dollars per ounce and had taken forever to get from the East to the West Coast, now cost pennies and got there in a few days."

Spread Knowledge and Virtue

Ambrose quotes from an October 1868 issue of Putnam's Magazine, which extolled the railroad revolution that, in a span of 15 years, enabled the U.S. population to increase by 90 percent, and production to jump by 230 percent. The transcontinental railroad, Putnam's wrote, had "lightened human toil, made men richer in blessings and in leisure, increased their activity, shielded them from tempest and famine, enlarged the area available for man's residence and subsistence, enabled him to do more in the same period of time, and spread knowledge and virtue over all this earth."

That is as fair a summary of the "American intellectual tradition" and the American System of Political Economy, as one could muster.

-Jeffrey Steinberg

The 'Chickenhawks' Take Aim

Professor Cohen is part of the interlocking directorate of neo-conservative institutions,— including the American Enterprise Institute, the Project for a New American Century, and the Defense Policy Board,— in which perhaps two dozen individuals populate about that number of boards and "think-tanks," all funded by the same foundations, and all selling the same policies in the same words, like so many communist fronts of yesteryear.

In this bestseller, allegedly read by the President, Cohen sketches a few wartime vignettes, supposedly to demonstrate a scholarly thesis that war requires intervention by civilian leaderships into military affairs. But, wasn't that already well-known for the case of the modern nation-state? Shouldn't every high-school student know the "Commander-in-Chief" clause of our Constitution?

Indeed, the thesis only exists at all, within the Alice-in-Wonderland world created by Cohen's teacher, crazy Sam Huntington, in his book *The Soldier and the State* (1957).

What is Cohen really driving at? Most obviously, of course, he argues for his right, with his mentor Paul Wol-



Supreme Command: Soldiers, Statesmen, and Leadership in Wartime by Eliot A. Cohen New York, Free Press, 2002 288 pages, hardcover, \$25.00 fowitz, and with Richard Perle and his other "chickenhawk" confederates on the Defense Policy Board and elsewhere, to overrule military objections to their proposed war on Iraq, and other wars to follow it.

Although they refer to 9/11 to justify their policy, the policy is much older. Indeed, Cohen was working for Wolfowitz in the Pentagon in 1990, the same year that Cheney and Wolfowitz secretly formulated what was much later to become President Bush's 2002 "National Security Strategy."

The Viet Nam Legacy

Much of Cohen's argumentation is determined by the legacy of Viet Nam.

That long American tragedy was aimed to drown the patriotic American military tradition in despair. But, because our fighters were human beings, Viet Nam worked to somewhat the opposite effect as well. By the time that 58,000 of their countrymen had been killed, over more than eight futile years, some, especially among our junior officers, began to ask questions which seem never to have occurred to Professor Cohen. What is the value of a human life? When can a nation-state require its citizen to risk his life? And closely related ones: What is war? When must war be fought? When avoided?

Perhaps all the carnage will not have been completely in vain, they thought,— if, when our turn comes, we can succeed, where Robert McNamara and McGeorge Bundy utterly failed the trust of Presidents Kennedy and Johnson, and the American people. Read the memoirs of Gen. Colin Powell, Professor Cohen's favorite hateobject.

They restudied American history to that end, an appropriate one for the last decades of a century which had seen so much war. If they came short of the truth, the fault was in their education, whether civilian or military. Especially since the time of the assassination of patriotic President William McKinley in 1901, American historiography had been falsified beyond recognition, by "American Tories" (as Franklin Roosevelt called them). It is only typical that arch-Tory Cohen earlier taught "strategy," of all things,— at the U.S. Naval War College.

Our most senior military officers of today, are from among those junior officers of the Vietnam years. Others of them have recently gone into retirement. If their historical studies were flawed, they have still been relatively truthful, and for that reason very useful, nonetheless.

Military Heroes

Take some remarks made Oct. 10 by Gen. Anthony Zinni (USMC-ret.), when asked about the prospect of U.S. invasions of other Muslim countries, after Iraq. He said:

"I have a couple of heroes. One is George C. Marshall, a great general, who led us through a great war and victory. Look what that general did, after the war. He didn't look to fight more wars. He didn't look to leave the situation in the condition,-in a place, where those wars would rebreed themselves. Look at General MacArthur in Japan, a man who suffered through Bataan and Corregidor, who lost his troops to a horrific enemy, and his reaching out to the Japanese people, his using other means to recreate stability. prosperity. Look at General Grant and Lee, where Grant wanted the mildest of surrenders, where dignity was maintained, where friendship and connection could happen. Robert E. Lee did not want to go into the hills and fight guerrilla war. It was a time to heal, to do it at the best level.

"General George Washington, who avoided a second war with England, despite everyone pressing him to go to war a second time, someone who'd been through the pains of fighting with the Continental Army. General Eisenhower, who didn't see the solution in Indochina, in getting involved when the French were engaged with the Viet Minh. He saw that as a loser's strategy, despite everybody clamoring about the dominoes that would fall.

"Like those generals who are far greater than I am, I don't think violence and war is the solution. There are times when you reluctantly, as a last resort, ... I will tell you, I never saw anything come out of fighting that was worth the fight, in my time. Now, I'm sure my brother who served in Korea, my cousins who served in the Pacific and served in Europe in World War II, my father who fought for this country in the First World War, and the other twelve percent of Italian immigrants who served in the infantry,— they may have a different view of their war. My wars that I saw, were handled poorly."

'Chickenhawks' vs. the Generals

In a word, Viet Nam has helped many of our four-star and other senior officers, to arrive at a closer understanding of the historic American strategic principles of Presidents Lincoln and Roosevelt, and MacArthur and our other great generals. This will be of benefit when just war is again forced upon us in the future. It is of benefit now, when a group of civilian "chickenhawks" has gained influence over the President in the wake of 9/11, with their projects for war against Iraq, and more generally for what one of them, Professor Cohen, has called "World War IV."

These military men and their ideas and institutions are Professor Cohen's target. Like Iraq itself, Colin Powell is only the first of many on the list for elimination.

Cohen, Perle, and Wolfowitz are determined to get their war, even at the cost of denying competent military officers any input into its planning. They have shown similarly that they're willing to suffer U.S. intelligence to be blinded, before permitting circulation of estimates or facts which contradict their theories.

What can one conclude, but that simply *starting* the wars they seek, is victory enough for them, and the devil take the hindmost? Viet Nam was the height of sanity by comparison.

-Tony Papert

Lyndon LaRouche at Eighty

The occasion of Democratic Presidential pre-candidate Lyndon La-Rouche's 80th birthday, Sept. 8, 2002, was celebrated with the publication of a commemorative *Festschrift*, containing greetings from his friends and colleagues from around the world. The volume includes messages of love and respect from 136 individuals, organized by continent, along with photographs of LaRouche's global organizing activies and press coverage over the past five years.

The contents of this extraordinary volume illustrate the remarkable role LaRouche has assumed as the unique, unifying spokesman for an international movement of persons dedicated to saving humanity from the existential crisis now gripping the world. These persons come from diverse political, religious, ethnic, and philosophical backgrounds, and their greetings reflect this; but they are united in acknowledging the inspiration and hope offered by LaRouche's efforts on behalf of the common good of people everywhere.

The contributors run the gamut of personal and professional accomplishment, from Nobel Prize winner to plain citizen, from leader of nations, to musician, artist, trade unionist, veteran, and scholar. Their greetings are alternately long and short, personal and formal, philosophical, scientific, and just plain cheerful. They include 31 sitting and retired Federal, state, and local elected officials from the United States; five Parliamentarians from Italy; four Monsignors and Bishops from Europe and North America; three Ambassadors of African nations; senior political leaders from India; multiple academicians, economists, and scientists from Russia and Eastern Europe; impassioned spokesmen from the Arab world; political leaders from Ibero-America. They view LaRouche from multiple perspectives: as a fighter against injustice and for a New Bretton Woods; as a campaigner for a new Renaissance of science and art; as a spokesman for the American Intellectual Tradition.

From Russia, Professor Tatyana Koryagina writes: "It is no exaggeration to say that Lyndon LaRouche is a per-

son of planetary dimensions. He is known in every country in the world. ... He is one of the public figures and thinkers, who shaped the development of humanity in the 20th Century" And from India, former Finance Minister K.R. Ganesh calls LaRouche, "a world statesman of epic dimensions," and wishes, "Dear friend, live long, the world and mankind need you." From Brazil, former Presidential candidate Dr. Enéas Carneiro marvels at an American politician who, reminding him of his youthful university days, knows what a catenary is. These are just a few of the efforts undertaken, to find an appropriate perspective from which to view the accomplishments of Lyndon H. LaRouche, Jr.

Touching the Heart

Perhaps the most extraordinary greetings are those that give testimony to the influence of LaRouche on their personal lives.

• Jean Gahururu, former Minister in the government of Rwanda, recounts LaRouche's words at a meeting of squabbling African representatives: "It is unjust and criminal on your part (he said) that in the name of your false ethnicities, each person seeks to represent himself as the sole victim in a general human catastrophe. ... Don't forget humanity overall! Make of your suffering a force for change!"

• Konstantin Cheremnykh, the Schiller Institute representative in St. Petersberg, Russia, recounts his early experiences as a student under Communism, and how he "really discovered America, shortly after the conscience of America was released from prison.... I remember ... the half-forgotten joy of discovery when you jump to your feet, screaming, 'That's it!!!' ... I remember the change of feeling of space, of a world becoming broader and clearer, in all its tragic reality, and the real existence of the means to change this world for the better."

• David Brode, Vice President of the Western Maryland Central Labor Council, writes: "You, and those around you, have taught me many things. Perhaps



Festschrift for Lyndon LaRouche: A Celebration on the Occasion Of His 80th Birthday Washington, D.C., EIR News Service, 2002 260 pages, paperback

the most important is to use my time on Earth to do something to truly help the human race. I hope that I can succeed." Robert Cebina, President of U.A.W. Local 723 in Michigan, says simply: "It's been a pleasure working with you, and a pleasure knowing a man of the infinite wisdom that you have."

• And, in a different way, Ljubco Georgievski, President of the Government of the Republic of Macedonia, writes: "We are grateful for your strategic suggestions and the support you have been giving to Macedonia. As you know, the previous year was very hard for us ... We were defending the country from external well-organized terrorism, and at the same time, we were fighting to defend the principle of national sovereignty and development. That is why we attach great significance to your ideas, and in particular to the idea of New Bretton Woods. What we need is a just and humane world order within which all nations-small and large-will be able to cooperate for humanity's common good."

The title page of the *Festschrift* is fittingly inscribed with the words of Percy Bysshe Shelley's "Ode to the West Wind": "Drive my dead thoughts over the universe/ Like withered leaves to quicken a new birth!/ And by the incantation of this verse/ Scatter, as from an unextinguished hearth/ Ashes and sparks, my words among mankind!" —Ken Kronberg We, and our young people, must become, in effect, a university. That, while acting, organizing, and so forth, you must be a university. We can create a better university than exists in the United States generally today, in that way; to create a university in motion, of young people who come from the 'no-future generation,' who are seizing the future, and seizing the qualifications to conduct it.

> —Lyndon H. LaRouche, Jr. September 11, 2002

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Bringing the Invisible To the Surface: The Discovery of Gauss

For the mathematician Carl Friedrich Gauss, no magnitude could be admitted, unless its principle of generation were demonstrated. For magnitudes associated with the square roots of negative numbers, that principle was the complex physical action of *rotation combined with extension*. Gauss called the magnitudes generated by this complex action, "complex numbers." Each complex number denoted a quantity of combined rotational and extended action.

The unit of action in Gauss's complex domain is a circle, which is one rotation, with an extension of one. In this domain, the number 1 signifies one complete rotation; -1, half a rotation; $\sqrt{-1}$, onefourth of a rotation; and $-\sqrt{-1}$, threefourths of a rotation.



A Gaussian surface for the second power.



A Gaussian surface for the third power.

Gaussian Surfaces

In his 1799 doctoral dissertation, the 21year-old Gauss used this principle to generate surfaces that expressed the essential characteristic of *powers* in a fundamental way. Each rotation and extension produced a characteristic right triangle. The vertical leg of that triangle is the *sine*, and the horizontal leg of that triangle is the *cosine*.

Gauss represented this complex of actions as a surface. Each point on the surface is determined so that its height above the flat plane, is equal to the distance from the center, times the sine of the angle of rotation, as that angle is increased by the effect of the *power*. In other words, the *power* of any point in the flat plane, is represented by the height of the surface above that point. Thus, as the numbers on the flat surface move outward from the center, the surface grows higher according to the power. At the same time, as the numbers rotate around the center, the sine will pass from positive to negative. Since the numbers on the surface are the powers of the numbers on the flat plane, the number of times the sine will change from positive to negative, depends on how much the power multiplies the angle (double for square powers, triple for cubics, etc.). Therefore, each surface will have as many 'humps' as the equation has dimensions. Consequently, a quadratic equation will have two humps up and two humps down. A cubic equation will have three humps up and three humps down. A fourth-degree equation will have four humps in each direction; and so on.

Proceeding in this manner led Gauss to the proof of the 'Fundamental Theorem of Algebra,' that an algebraic equation has as many roots, or solutions, as its highest power.



A Gaussian surface for the fourth power.

[SEE 'The Fundamental Theorem of Algebra: Bringing the Invisible to the Surface']

SPECIAL DOUBLE ISSUE

LaRouche Launches Revolutionary Youth Movement—For a New Renaissance!

In September, Lyndon LaRouche pulled together the activities of young recruits to his Presidential campaign from around the U.S., to forge an international LaRouche Youth Movement, dedicated to overcoming the onrushing global economic crisis, through nothing short of a new Renaissance of Classical science and art. This special issue of *Fidelio* features extensive coverage of the dialogue between LaRouche and these young people, coupled with articles on the fundamentals of the philosophical method that stretches from Plato and the ancient Greeks, through the European Golden Renaissance, to scientists like G.W. Leibniz, Carl Friedrich Gauss, and today's LaRouche. Confronted with the abysmal state of contemporary education, it is clear why LaRouche has dubbed his Youth Movement, "a combat university on wheels."



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