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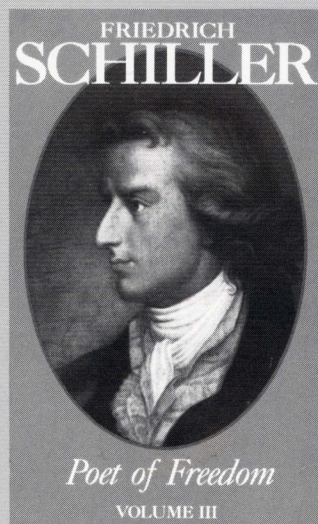
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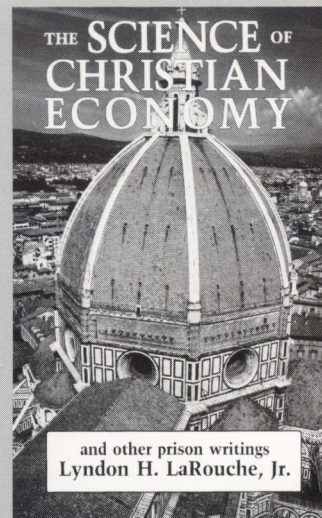
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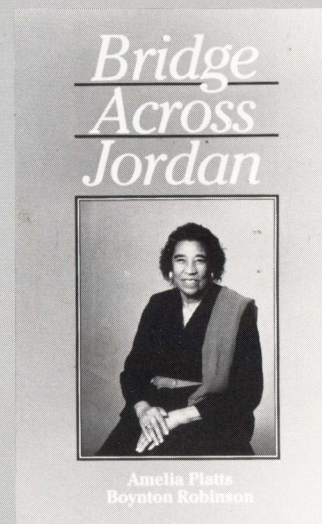
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FIDELIO

"It is through beauty that one proceeds to freedom."

—Friedrich Schiller

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On the Cover
Raphael Sanzio, *The School of
Athens*, 1509 (detail). See inside
back cover for full fresco and
analysis. [Photos courtesy of
the Vatican Museums.]

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For A New Golden Renaissance

At its annual board meeting on Labor Day weekend this year, the Schiller Institute resolved to publish a new cultural journal in order to escalate the fight it has waged, since its inception in 1984, for a new Golden Renaissance based upon the aesthetical principles elaborated by the German poet Friedrich Schiller. The name selected for this journal, **Fidelio**, after Ludwig van Beethoven's great opera, was an obvious choice.

In January of 1989, Lyndon LaRouche, like Beethoven's Florestan, was sentenced to a 15-year jail term, which, at age sixty-eight, is effectively a death sentence. Although the pretext for jailing LaRouche was government-manufactured "economic crimes," the real reason for his imprisonment was that, like Florestan, he "dared to speak the truth boldly." And as the jailkeeper Rocco observes in the opera with respect to Florestan, he is imprisoned and threatened with death not because of any crimes, but rather solely because he has powerful enemies.

Just as Florestan is persecuted by the tyrant Pizarro, who seeks revenge for Florestan's efforts to overthrow his evil designs, so LaRouche has been the target of a vendetta carried out by Henry Kissinger, because of LaRouche's fight for a just new world economic order to replace the unjust international monetary system of Kissinger's backers, which is currently imposing Malthusian genocide upon the people of the Third World.

At the same time, Leonora, Florestan's wife (who disguises herself as Fidelio in the opera in order to save her husband from certain death at the hands of Pizarro), embodies precisely those angelic virtues of fidelity, hope, and love, which are most required in

today's world, where, as in Schiller's own day, "utility is the idol." And just as Lyndon LaRouche is today's Florestan, so does his wife Helga Zepp-LaRouche, founder of the Schiller Institute, remind us of Leonora in her courageous fight to free her husband.

This is not the first time that such a parallel has been drawn to Beethoven's great opera. It has been suggested by author Donald Phau that the libretto for *Fidelio*, written by a Frenchman, Jean N. Bouilly, was based upon the imprisonment of the Marquis de Lafayette, one of the great heroes of the American Revolution, and the efforts of his wife Adrienne to free him.

At this moment in history, as was the case during Schiller's lifetime (1759-1805), the world is faced with a choice. Either the ideas of 1776 and the American Revolution prevail and the world enters an Age of Reason, or, failing to seize the opportunity presented by the recent collapse of communism in Eastern Europe, we face a period of unprecedented human misery.

Today, even as Beethoven's setting of Schiller's "Ode to Joy" in the choral movement of the Ninth Symphony has emerged as the new international hymn of political freedom

EDITORIAL

in the former communist countries, in the West, the values of the American Revolution, perhaps better expressed by Schiller than by any other poet, have been dramatically undermined. The Judeo-Christian values upon which the nation was founded have been in large part replaced by a "culture of ugliness," or by what Pope John Paul II describes in his recent encyclical *Centesimus Annus* as a "culture of death."

As we shall establish in this inaugural issue of **Fidelio**, the cultural paradigm shift which has occurred in this country in recent years and whose values have come to be identified as "politically correct," is the product of the notorious Frankfurt School or the Institute for Social Research (I.S.R.). Ironically, even as communism has collapsed in the East, we shall show that the values increasingly adopted in the West are those which were deliberately designed by the Communist International-created Frankfurt School in the 1920's for the purpose of undermining the cultural matrix of the West, which had proven resistant to Bolshevism. As one of the founders of the Frankfurt School, Comintern member

George Lukacs wrote, clearly revealing his objective: "Who will save us from Western Civilization?"

The answer, not accidentally, was Aristotle and his many clones, such as Immanuel Kant, who have systematically attempted to undermine the Socratic method of Plato, the method which was adopted and further advanced by the great Christian theologians and scientists from St. Augustine to Cardinal Nicolaus of Cusa and Gottfried Wilhelm Leibniz, among others.

Using the method of Aristotle, the Frankfurt School denies that the idea of the Good can be considered a universal principle of being. Thus they adopt the age-old Manichean dualism, which Kant had formalized, by denying the unity of physical science (*Naturwissenschaft*) and the arts (*Geisteswissenschaft*).

Contrary to another member of the Frankfurt School, Herbert Marcuse, who in his book *Eros and Civilization* falsely claims to derive his erotic theory of liberation from Friedrich Schiller, the aesthetical writings of Schiller are among the greatest weapons we have today in the fight not only to defeat the Aristotelian counterculture spawned by the Frankfurt School, but more importantly, to create the kind of renaissance in art and science which alone can help us achieve true and durable political freedom.

As Schiller writes in his *Letters On the Aesthetical Education of Man*, "It is through beauty that one proceeds to freedom." Contrary to Kant, who insisted that beauty is a question of subjective taste, Schiller, like Lyndon LaRouche and his co-thinkers in the Schiller Institute today, insisted that art is not a domain separate from science, but rather beauty is subject to scientific determination.

In his many writings on aesthetics, Schiller proves that beauty is a reflection of the Christian notion of *agapē* or charity, and not as Marcuse argues, a reflection of *eros* or the dionysian desire for immediate sensual gratification. True beauty, as Schiller maintains, must be coherent with the laws of the physical universe, and as he argues in his "Philosophical Letters," nature is the image of the Divine substance, which is love.

With this inaugural issue of *Fidelio* we emphasize, that if we are to bring about a renaissance of the human spirit, we must master the scientific principles which underlie the harmony of the universe. In music, as in the other arts, freedom is not the license to defy

Give thus, I shall answer the young friend of truth and beauty, who would know from me how, in the face of all the opposition of the century, he might satisfy the noble instinct in his breast: give the world upon which you act, the *direction* toward the good; then, the calm rhythm of time will bring its development. You have given it this direction when, teaching, you elevate its thought to the necessary and eternal; when acting or forming, you transform the necessary and eternal into an object of its instinct. The structure of delusion and of arbitrariness will fall—it must fall—it has already fallen—as soon as you are certain that it inclines; but it must incline in the inner, not merely in the outer man. Educate in the modest stillness of your heart the victorious truth, set it forth in beauty from within yourself, so that not merely thoughts pay homage to it, but also the senses seize its appearance lovingly. And lest it thereby befall you, to receive from the actual the model which you should give to it, then do not venture into its doubtful society until you are assured of an ideal following in your heart. Live with your century, but do not be its creature; give to your contemporaries, but what they need, not what they praise.

—Friedrich Schiller,
from the Ninth Letter,
Letters on the Aesthetical Education of Man

the laws of nature for momentary erotic gratification. Rather, true artistic freedom is only achieved by being in harmony with, and celebrating the lawfulness of, creation.

To this end, we feature in this issue two articles, on the "Science of Music" by Lyndon LaRouche and on "Scientific Tuning" by Jonathan Tennenbaum, both of which will appear in the *Manual on the Rudiments of Tuning and Registration* soon to be published by the Institute. These articles demonstrate the lawful reason why A should be tuned at 432Hz (C=256), rather than at the now customary A=440Hz or higher.

It is the hope of the Schiller Institute in publishing *Fidelio*, that we shall help spark a needed Golden Renaissance and thus give the world, as Schiller said, "the *direction* of the good." Only then will we be certain, that this great moment in history will have found a people great enough for the task before us.

THE NEW DARK AGE

The Frankfurt School and 'Political Correctness'

by Michael J. Minnicino

The people of North America and Western Europe now accept a level of ugliness in their daily lives which is almost without precedent in the history of Western civilization.

Most of us have become so inured to this, that the death of millions from starvation and disease draws from us no more than a sigh, or a murmur of protest. Our own city streets, home to legions of the homeless, are ruled by Dope, Inc.—the largest industry in the world—and on those streets Americans now murder each other at a rate not seen since the Dark Ages.

At the same time, a thousand smaller horrors are so commonplace as to go unnoticed. Our children spend as much time sitting in front of television sets as they do in school, watching with glee scenes of torture and death which might have shocked an audience in the Roman Coliseum. Music is everywhere, almost unavoidable—but it does not uplift, nor even tranquilize—it claws at the ears, sometimes spitting out an obscenity. Our plastic arts are ugly, our architecture is ugly, our clothes are ugly.

There have certainly been periods in history where mankind has lived through similar kinds of brutishness, but our time is crucially different. Our post-World War

II era is the first in history in which these horrors are completely avoidable. Our time is the first to have the technology and resources to feed, house, educate, and humanely employ every person on earth, no matter what the growth of population. Yet, when shown the ideas and proven technologies that can solve the most horrendous problems, most people retreat into implacable passivity. We have become not only ugly, but impotent.

Nonetheless, there is no reason why our current moral-cultural situation had to lawfully or naturally turn out as it has; and there is no reason why this tyranny of ugliness should continue one instant longer.

Consider the situation just one hundred years ago, in the early 1890's. In music, Claude Debussy was completing his *Prelude to the Afternoon of a Faun*, and Arnold Schönberg was beginning to experiment with atonalism; at the same time, Dvorak was working on his Ninth Symphony, while Brahms and Verdi still lived. Edvard Munch was showing *The Scream*, and Paul Gauguin his *Self-Portrait with Halo*, but in America, Thomas Eakins was still painting and teaching. Mechanists like Helmholtz and Mach held major university chairs of science, alongside the students of Riemann and Cantor. Pope Leo XIII's *De Rerum Novarum* was being promulgated,

EIRNS/Stuart Lewis

even as sections of the Socialist Second International were turning terrorist, and preparing for class war.

The optimistic belief that one could compose music like Beethoven, paint like Rembrandt, study the universe like Plato, and change world society without violence, was alive in the 1890's—admittedly, it was weak, and under siege, but it was hardly dead. Yet, within twenty short years, these Classical traditions of human civilization had been all but swept away, and the West had committed itself to a series of wars of inconceivable carnage.

What started about a hundred years ago, was what might be called a counter-Renaissance. The Renaissance of the fifteenth and sixteenth centuries was a religious celebration of the human soul and mankind's potential for growth. Beauty in art could not be conceived of as anything less than the expression of the most-advanced scientific principles, as demonstrated by the geometry upon which Leonardo's perspective and Brunelleschi's great Dome of Florence Cathedral are based. The finest minds of the day turned their thoughts to the heavens and the mighty waters, and mapped the solar system and the route to the New World, planning great projects to turn the course of rivers for the betterment of mankind.

About a hundred years ago, it was as though a long checklist had been drawn up, with all of the wonderful achievements of the Renaissance itemized—each to be reversed. As part of this "New Age" movement, as it was then called, the concept of the human soul was undermined by the most vociferous intellectual campaign in history; art was forcibly separated from science, and science itself was made the object of deep suspicion. Art was made ugly because, it was said, life had become ugly.

The cultural shift away from the Renaissance ideas that built the modern world, was owing to a kind of freemasonry of ugliness. In the beginning, it was a formal political conspiracy to popularize theories that were specifically designed to weaken the soul of Judeo-Christian civilization in such a way as to make people believe that creativity was not possible, that adherence to universal truth was evidence of authoritarianism, and that reason itself was suspect. This conspiracy was decisive in planning and developing, as means of social manipulation, the vast new sister industries of radio, television, film, recorded music, advertising, and public opinion polling. The pervasive psychological hold of the media was purposely fostered to create the passivity and pessimism which afflict our populations today.

So successful was this conspiracy, that it has become embedded in our culture; it no longer needs to be a

"conspiracy," for it has taken on a life of its own. Its successes are not debatable—you need only turn on the radio or television. Even the nomination of a Supreme Court Justice is deformed into an erotic soap opera, with the audience rooting from the sidelines for their favorite character.

Our universities, the cradle of our technological and intellectual future, have become overwhelmed by Comintern-style New Age "Political Correctness." With the collapse of the Soviet Union, our campuses now represent the largest concentration of Marxist dogma in the world. The irrational adolescent outbursts of the 1960's have become institutionalized into a "permanent revolution." Our professors glance over their shoulders, hoping the current mode will blow over before a student's denunciation obliterates a life's work; some audio-tape their lectures, fearing accusations of "insensitivity" by some enraged Red Guard. Students at the University of Virginia recently petitioned successfully to drop the requirement to read Homer, Chaucer, and other DEMS ("Dead European Males") because such writings are considered ethnocentric, phallogentric, and generally inferior to the "more relevant" Third World, female, or homosexual authors.

This is not the academy of a republic; this is Hitler's Gestapo and Stalin's NKVD rooting out deviationists, and banning books—the only thing missing is the public bonfire.

We will have to face the fact that the ugliness we see around us has been consciously fostered and organized in such a way, that a majority of the population is losing the cognitive ability to transmit to the next generation the ideas and methods upon which our civilization was built. The loss of that ability is the primary indicator of a Dark Age. And, a New Dark Age is exactly what we are in. In such situations, the record of history is unequivocal: either we create a Renaissance—a rebirth of the fundamental principles upon which civilization originated—or, our civilization dies.

I. The Frankfurt School: Bolshevik Intelligentsia

The single, most important organizational component of this conspiracy was a Communist thinktank called the Institute for Social Research (I.S.R.), but popularly known as the Frankfurt School after its location at the University of Frankfurt in Germany.

In the heady days immediately after the Bolshevik Revolution in Russia, it was widely believed that proletarian revolution would momentarily sweep out of the Urals into Europe and, ultimately, North America. It did not; the only two attempts at workers' government in the West—in Munich and Budapest—lasted only months. The Communist International (Comintern) therefore began several operations to determine why this was so. One such was headed by **Georg Lukacs**, a Hungarian aristocrat, son of one of the Hapsburg Empire's leading bankers. Trained in Germany and already an important literary theorist, Lukacs became a Communist during World War I, writing as he joined the party, "Who will save us from Western civilization?" Lukacs was well-suited to the Comintern task: he had been one of the Commissars of Culture during the short-lived Hungarian Soviet in Budapest in 1919; in fact, modern historians link the shortness of the Budapest experiment to Lukacs' orders mandating sex education in the schools, easy access to contraception, and the loosening of divorce laws—all of which revulsed Hungary's Roman Catholic population.

Fleeing to the Soviet Union after the counter-revolution, Lukacs was sent secretly into Germany in 1922, where he chaired a meeting of Communist-oriented sociologists and intellectuals. This meeting founded the Institute for Social Research. Over the next decade, the Institute worked out what was to become the Comintern's most successful psychological warfare operation against the capitalist West.

Lukacs identified that any political movement capable of bringing Bolshevism to the West would have to be, in his words, "demonic"; it would have to "possess the religious power which is capable of filling the entire soul; a power that characterized primitive Christianity." However, Lukacs suggested, such a "messianic" political movement could only succeed when the individual believes that his or her actions are determined by "not a personal destiny, but the destiny of the community" in a world "*that has been abandoned by God* [emphasis added]." Bolshevism worked in Russia because that nation was dominated by a peculiar gnostic form of Christianity typified by the writings of Fyodor Dostoyevsky. "The model for the new man is Alyosha Karamazov," said Lukacs, referring to the Dostoyevsky character who willingly gave over his personal identity to a holy man, and thus ceased to be "unique, pure, and therefore abstract."

This abandonment of the soul's uniqueness also solves the problem of unleashing "the diabolic forces lurking in all violence" which are needed to create a revolution. In this context, Lukacs cited the Grand Inquisitor section

of Dostoyevsky's *The Brothers Karamazov*, noting that the Inquisitor who is interrogating Jesus, has resolved the issue of good and evil: once man has understood his alienation from God, then any act in the service of the "destiny of the community" is justified; such an act can be "neither crime nor madness. . . . For crime and madness are objectifications of transcendental homelessness."

According to an eyewitness, during meetings of the Hungarian Soviet leadership in 1919 to draw up lists for the firing squad, Lukacs would often quote the Grand Inquisitor: "And we who, for their happiness, have taken their sins upon ourselves, we stand before you and say, 'Judge us if you can and if you dare.'"

The Problem of Genesis

What differentiated the West from Russia, Lukacs identified, was a Judeo-Christian cultural matrix which emphasized exactly the uniqueness and sacredness of the individual which Lukacs abjured. At its core, the dominant Western ideology maintained that the individual, through the exercise of his or her reason, could discern the Divine Will in an unmediated relationship. What was worse, from Lukacs' standpoint: this reasonable relationship necessarily implied that the individual could and should change the physical universe in pursuit of the Good; that Man should have dominion over Nature, as stated in the Biblical injunction of Genesis. The problem was, that as long as the individual had the belief—or even the hope of the belief—that his or her divine spark of reason could solve the problems facing society, then that society would never reach the state of hopelessness and alienation which Lukacs recognized as the necessary prerequisite for socialist revolution.

The task of the Frankfurt School, then, was first, to undermine the Judeo-Christian legacy through an "abolition of culture" (*Aufhebung der Kultur* in Lukacs' German); and, second, to determine new cultural forms which would *increase the alienation of the population*, thus creating a "new barbarism." To this task, there gathered in and around the Frankfurt School an incredible assortment of not only Communists, but also non-party socialists, radical phenomenologists, Zionists, renegade Freudians, and at least a few members of a self-identified "cult of Astarte." The variegated membership reflected, to a certain extent, the sponsorship: although the Institute for Social Research started with Comintern support, over the next three decades its sources of funds included various German and American universities, the Rockefeller Foundation, Columbia Broadcasting System, the American Jewish Committee, several American intelli-

gence services, the Office of the U.S. High Commissioner for Germany, the International Labour Organization, and the Hacker Institute, a posh psychiatric clinic in Beverly Hills.

Similarly, the Institute's political allegiances: although top personnel maintained what might be called a sentimental relationship to the Soviet Union (and there is evidence that some of them worked for Soviet intelligence into the 1960's), the Institute saw its goals as higher than that of Russian foreign policy. Stalin, who was horrified at the undisciplined, "cosmopolitan" operation set up by his predecessors, cut the Institute off in the late 1920's, forcing Lukacs into "self-criticism," and briefly jailing him as a German sympathizer during World War II.

Lukacs survived to briefly take up his old post as Minister of Culture during the anti-Stalinist Imre Nagy regime in Hungary. Of the other top Institute figures, the political perambulations of **Herbert Marcuse** are typical. He started as a Communist; became a protégé of philosopher Martin Heidegger even as the latter was joining the Nazi Party; coming to America, he worked for the World War II Office of Strategic Services (OSS), and later became the U.S. State Department's top analyst of Soviet policy during the height of the McCarthy period; in the 1960's, he turned again, to become the most important guru of the New Left; and he ended his days helping to found the environmentalist-extremist Green Party in West Germany.

In all this seeming incoherence of shifting positions and contradictory funding, there is no ideological conflict. The invariant is the desire of all parties to answer Lukacs' original question: "Who will save us from Western civilization?"

Theodor Adorno and Walter Benjamin

Perhaps the most important, if least-known, of the Frankfurt School's successes was the shaping of the electronic media of radio and television into the powerful instruments of social control which they represent today. This grew out of the work originally done by two men who came to the Institute in the late 1920's, **Theodor Adorno** and **Walter Benjamin**.

After completing studies at the University of Frankfurt, Walter Benjamin planned to emigrate to Palestine in 1924 with his friend **Gershom Scholem** (who later became one of Israel's most famous philosophers, as well as Judaism's leading gnostic), but was prevented by a love affair with **Asja Lacis**, a Latvian actress and Comintern stringer. Lacis whisked him off to the Italian island of Capri, a cult center from the time of the Emperor Ti-

berius, then used as a Comintern training base; the heretofore apolitical Benjamin wrote Scholem from Capri, that he had found "an existential liberation and an intensive insight into the actuality of radical communism."

Lacis later took Benjamin to Moscow for further indoctrination, where he met playwright **Bertolt Brecht**, with whom he would begin a long collaboration; soon thereafter, while working on the first German translation of the drug-enthusiast French poet Baudelaire, Benjamin began serious experimentation with hallucinogens. In 1927, he was in Berlin as part of a group led by Theodor Adorno, studying the works of Lukacs; other members of the study group included Brecht and his composer-partner **Kurt Weill**; **Hans Eisler**, another composer who would later become a Hollywood film score composer and co-author with Adorno of the textbook *Composition for the Film*; the avant-garde photographer **Imre Moholy-Nagy**; and the conductor **Otto Klemperer**.

From 1928 to 1932, Adorno and Benjamin had an intensive collaboration, at the end of which they began publishing articles in the Institute's journal, the *Zeitschrift für Sozialforschung*. Benjamin was kept on the margins of the Institute, largely due to Adorno, who would later appropriate much of his work. As Hitler came to power, the Institute's staff fled, but, whereas most were quickly spirited away to new deployments in the U.S. and England, there were no job offers for Benjamin, probably owing to the animus of Adorno. He went to France, and, after the German invasion, fled to the Spanish border; expecting momentary arrest by the Gestapo, he despaired and died in a dingy hotel room of self-administered drug overdose.

Benjamin's work remained almost completely unknown until 1955, when Scholem and Adorno published an edition of his material in Germany. The full revival occurred in 1968, when **Hannah Arendt**, Heidegger's former mistress and a collaborator of the Institute in America, published a major article on Benjamin in the *New Yorker* magazine, followed in the same year by the first English translations of his work. Today, every university bookstore in the country boasts a full shelf devoted to translations of every scrap Benjamin wrote, plus exegesis, all with 1980's copyright dates.

Adorno was younger than Benjamin, and as aggressive as the older man was passive. Born Teodoro Wiesengrund-Adorno to a Corsican family, he was taught the piano at an early age by an aunt who lived with the family and had been the concert accompanist to the international opera star Adelina Patti. It was generally thought that Theodor would become a professional mu-

sician, and he studied with Bernard Sekles, Paul Hindemith's teacher. However, in 1918, while still a *gymnasium* student, Adorno met **Siegfried Kracauer**. Kracauer was part of a Kantian-Zionist salon which met at the house of **Rabbi Nehemiah Nobel** in Frankfurt; other members of the Nobel circle included philosopher **Martin Buber**, writer **Franz Rosenzweig**, and two students, **Leo Lowenthal** and **Erich Fromm**. Kracauer, Lowenthal, and Fromm would join the I.S.R. two decades later. Adorno engaged Kracauer to tutor him in the philosophy of Kant; Kracauer also introduced him to the writings of Lukacs and to Walter Benjamin, who was around the Nobel clique.

In 1924, Adorno moved to Vienna, to study with the atonalist composers **Alban Berg** and **Arnold Schönberg**, and became connected to the avant-garde and occult circle around the old Marxist **Karl Kraus**. Here, he not only met his future collaborator, Hans Eisler, but also came into contact with the theories of Freudian extremist **Otto Gross**. Gross, a long-time cocaine addict, had died in a Berlin gutter in 1920, while on his way to help the revolution in Budapest; he had developed the theory that mental health could only be achieved through the revival of the ancient cult of Astarte, which would sweep away monotheism and the "bourgeois family."

Saving Marxist Aesthetics

By 1928, Adorno and Benjamin had satisfied their intellectual wanderlust, and settled down at the I.S.R. in Germany to do some work. As subject, they chose an aspect of the problem posed by Lukacs: how to give aesthetics a firmly materialistic basis. It was a question of some importance, at the time. Official Soviet discussions of art and culture, with their wild gyrations into "socialist realism" and "proletkult," were idiotic, and only served to discredit Marxism's claim to philosophy among intellectuals. Karl Marx's own writings on the subject were sketchy and banal, at best.

In essence, Adorno and Benjamin's problem was Gottfried Wilhelm Leibniz. At the beginning of the eighteenth century, Leibniz had once again obliterated the centuries-old gnostic dualism dividing mind and body, by demonstrating that matter does not think. A creative act in art or science apprehends the truth of the physical universe, but it is not determined by that physical universe. By self-consciously concentrating the past in the present to effect the future, the creative act, properly defined, is as immortal as the soul which envisions the act. This has fatal philosophical implications for Marxism, which rests entirely on the hypothesis that mental activity is determined by the social relations excreted by

mankind's production of its physical existence.

Marx sidestepped the problem of Leibniz, as did Adorno and Benjamin, although the latter did it with a lot more panache. It is wrong, said Benjamin in his first articles on the subject, to start with the reasonable, hypothesizing mind as the basis of the development of civilization; this is an unfortunate legacy of Socrates. As an alternative, Benjamin posed an Aristotelian fable in interpretation of Genesis: Assume that Eden were given to Adam as the primordial physical state. The origin of science and philosophy does not lie in the investigation and mastery of nature, but in the *naming* of the objects



Beitmann Archive

Bertolt Brecht wrote plays to demoralize the audience. Above right: original Berlin staging of his Threepenny Opera. Above: Brecht, with composer Paul Dessau.

of nature; in the primordial state, to name a thing was to say all there was to say about that thing. In support of this, Benjamin cynically recalled the opening lines of the Gospel according to St. John, carefully avoiding the philosophically-broader Greek, and preferring the Vulgate (so that, in the phrase "In the beginning was the Word," the connotations of the original Greek word *logos*—speech, reason, ratiocination, translated as "Word"—are replaced by the narrower meaning of the Latin word *verbum*). After the expulsion from Eden and God's requirement that Adam eat his bread earned by the sweat of his face (Benjamin's Marxist metaphor for

the development of economies), and God's further curse of Babel on Nimrod (that is, the development of nation-states with distinct languages, which Benjamin and Marx viewed as a negative process away from the "primitive communism" of Eden), humanity became "estranged" from the physical world.

Thus, Benjamin continued, objects still give off an "aura" of their primordial form, but the truth is now hopelessly elusive. In fact, speech, written language, art, creativity itself—that by which we master physicality—merely furthers the estrangement by attempting, in Marxist jargon, to incorporate the objects of nature into

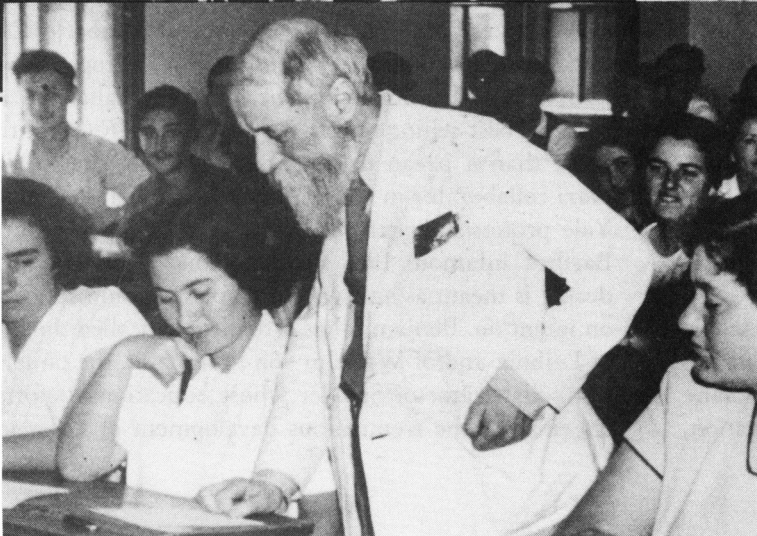


Bettmann Archive



AP/Wide World

Frankfurt School collaborator Hannah Arendt, former mistress of Nazi philosopher Martin Heidegger, publicized works of Walter Benjamin in U.S.



Philosopher Martin Buber began his career in the circles of Benjamin, Adorno, and Kracauer. By the 1960's, his I and Thou was required reading throughout American colleges.

the social relations determined by the class structure dominant at that point in history. The creative artist or scientist, therefore, is a vessel, like Ion the rhapsode as he described himself to Socrates, or like a modern “chaos theory” advocate: the creative act springs out of the hodgepodge of culture as if by magic. The more that bourgeois man tries to convey what he intends about an object, the less truthful he becomes; or, in one of Benjamin’s most oft-quoted statements, “Truth is the death of intention.”

This philosophical sleight-of-hand allows one to do several destructive things. By making creativity historically-specific, you rob it of both immortality and morality. One cannot hypothesize universal truth, or natural law, for truth is completely relative to historical development. By discarding the idea of truth and error, you also may throw out the “obsolete” concept of good and evil; you are, in the words of Friedrich Nietzsche, “beyond good and evil.” Benjamin is able, for instance, to defend what he calls the “Satanism” of the French Symbolists and their Surrealist successors, for at the core of this Satanism “one finds the cult of evil as a political device . . . to disinfect and isolate against all moralizing dilettantism” of the bourgeoisie. To condemn the Satanism of Rimbaud as evil, is as incorrect as to extol a Beethoven quartet or a Schiller poem as good; for both judgments are blind to the historical forces working *unconsciously* on the artist.

Thus, we are told, the late Beethoven’s chord structure was striving to be atonal, but Beethoven could not bring himself *consciously* to break with the structured world of Congress of Vienna Europe (Adorno’s thesis); similarly, Schiller really wanted to state that creativity was the liberation of the erotic, but as a true child of the Enlightenment and Immanuel Kant, he could not make the requisite renunciation of reason (Marcuse’s thesis). Epistemology becomes a poor relation of public opinion, since the artist does not consciously create works in order to uplift society, but instead unconsciously transmits the ideological assumptions of the culture into which he was born. The issue is no longer what is universally true, but what can be plausibly interpreted by the self-appointed guardians of the *Zeitgeist*.

‘The Bad New Days’

Thus, for the Frankfurt School, the goal of a cultural elite in the modern, “capitalist” era must be to strip away the belief that art derives from the self-conscious emulation of God the Creator; “religious illumination,” says Benjamin, must be shown to “reside in a profane illumination, a materialistic, anthropological inspiration,

to which hashish, opium, or whatever else can give an introductory lesson.” At the same time, *new cultural forms must be found to increase the alienation of the population*, in order for it to understand how truly alienated it is to live without socialism. “Do not build on the good old days, but on the bad new ones,” said Benjamin.

The proper direction in painting, therefore, is that taken by the late Van Gogh, who began to paint objects in disintegration, with the equivalent of a hashish-smoker’s eye that “loosens and entices things out of their familiar world.” In music, “it is not suggested that one can compose better today” than Mozart or Beethoven, said Adorno, but one must compose atonally, for atonalism is sick, and “the sickness, dialectically, is at the same time the cure. . . . The extraordinarily violent reaction protest which such music confronts in the present society . . . appears nonetheless to suggest that the dialectical function of this music can already be felt . . . negatively, as ‘destruction.’”

The purpose of modern art, literature, and music must be to destroy their uplifting—therefore, bourgeois—potential, so that man, *bereft of his connection to the divine*, sees his only creative option to be political revolt. “To organize pessimism means nothing other than to expel the moral metaphor from politics and to discover in political action a sphere reserved one hundred percent for images.” Thus, Benjamin collaborated with Brecht to work these theories into practical form, and their joint effort culminated in the *Verfremdungseffekt* (“estrangement effect”), Brecht’s attempt to write his plays so as to make the audience leave the theatre demoralized and aimlessly angry.

Political Correctness

The Adorno-Benjamin analysis represents almost the entire theoretical basis of all the politically correct aesthetic trends which now plague our universities. The Poststructuralism of **Roland Barthes**, **Michel Foucault**, and **Jacques Derrida**, the Semiotics of **Umberto Eco**, the Deconstructionism of **Paul DeMan**, all openly cite Benjamin as the source of their work. The Italian terrorist Eco’s best-selling novel, *The Name of the Rose*, is little more than a paean to Benjamin; DeMan, the former Nazi collaborator in Belgium who became a prestigious Yale professor, began his career translating Benjamin; Barthes’ infamous 1968 statement that “[t]he author is dead,” is meant as an elaboration of Benjamin’s dictum on intention. Benjamin has actually been called the heir of Leibniz and of Wilhelm von Humboldt, the philologist collaborator of Schiller whose educational reforms engendered the tremendous development of Germany

in the nineteenth century. Even as recently as September 1991, the *Washington Post* referred to Benjamin as “the finest German literary theorist of the century (and many would have left off that qualifying German).”

Readers have undoubtedly heard one or another horror story about how an African-American Studies Department has procured a ban on *Othello*, because it is “racist,” or how a radical feminist professor lectured a Modern Language Association meeting on the witches as the “true heroines” of *Macbeth*. These atrocities occur because the perpetrators are able to plausibly demonstrate, in the tradition of Benjamin and Adorno, that Shakespeare’s intent is irrelevant; what is important, is the racist or phallogocentric “subtext” of which Shakespeare was unconscious when he wrote.

When the local Women’s Studies or Third World Studies Department organizes students to abandon classics in favor of modern Black and feminist authors, the reasons given are pure Benjamin. It is not that these modern writers are better, but they are somehow more truthful because their alienated prose reflects the modern social problems of which the older authors were ignorant! Students are being taught that language itself is, as Benjamin said, merely a conglomeration of false “names” foisted upon society by its oppressors, and are warned against “logocentrism,” the bourgeois over-reliance on words.

If these campus antics appear “retarded” (in the words of Adorno), that is because they are designed to be. The Frankfurt School’s most important breakthrough consists in the realization that their monstrous theories could become dominant in the culture, as a result of the changes in society brought about by what Benjamin called “the age of mechanical reproduction of art.”

II. The Establishment Goes Bolshevik: ‘Entertainment’ Replaces Art

Before the twentieth century, the distinction between art and “entertainment” was much more pronounced. One could be entertained by art, certainly, but the experience was active, not passive. On the first level, one had to make a conscious choice to go to a concert, to view a certain art exhibit, to buy a book or piece of sheet music. It was unlikely that any more than an infinitesimal fraction of the population would have the opportunity to see *King Lear* or hear Beethoven’s Ninth Symphony

more than once or twice in a lifetime. Art demanded that one bring one’s full powers of concentration and knowledge of the subject to bear on each experience, or else the experience was considered wasted. These were the days when memorization of poetry and whole plays, and the gathering of friends and family for a “parlor concert,” were the norm, even in rural households. These were also the days before “music appreciation”; when one studied music, as many did, they learned to play it, not appreciate it.

However, the new technologies of radio, film, and recorded music represented, to use the appropriate Marxist buzz-word, a dialectical potential. On the one hand, these technologies held out the possibility of bringing the greatest works of art to millions of people who would otherwise not have access to them. On the other hand, the fact that the experience was infinitely reproducible could tend to disengage the audience’s mind, making the experience less sacred, thus increasing alienation. Adorno called this process, “demythologizing.” This new passivity, Adorno hypothesized in a crucial article published in 1938, could fracture a musical composition into the “entertaining” parts which would be “fetishized” in the memory of the listener, and the difficult parts, which would be forgotten. Adorno continued:

The counterpart to the fetishism is a regression of listening. This does not mean a relapse of the individual listener into an earlier phase of his own development, nor a decline in the collective general level, since the millions who are reached musically for the first time by today’s mass communications cannot be compared with the audiences of the past. Rather, it is the contemporary listening which has regressed, arrested at the infantile stage. Not only do the listening subjects lose, along with the freedom of choice and responsibility, the capacity for the conscious perception of music. . . . [t]hey fluctuate between comprehensive forgetting and sudden dives into recognition. They listen atomistically and dissociate what they hear, but precisely in this dissociation they develop certain capacities which accord less with the traditional concepts of aesthetics than with those of football or motoring. They are not childlike . . . but they are childish; their primitivism is not that of the undeveloped, but that of the *forcibly retarded* [emphasis added].

This conceptual retardation and preconditioning caused by listening, suggested that programming could determine preference. The very act of putting, say, a Benny Goodman number next to a Mozart sonata on the radio, would tend to amalgamate both into entertaining “music-on-the-radio” in the mind of the listener. This

Nazi-Communist Hippies of the 1920's



Bettmann Archive

Novelist Franz Werfel. Sexually liberated, he migrated to Hollywood with his lover Alma Mahler.

An overwhelming amount of the philosophy and artifacts of the American counterculture of the 1960's, plus the New Age nonsense of today, derives from a large-scale social experiment sited in Ascona, Switzerland from about 1910 to 1935.

Originally a resort area for members of **Helena Blavatsky's** Theosophy cult, the little Swiss village became the haven for every occult, leftist, and racist sect of the original New Age movement of the early twentieth century. By the end of World War I, Ascona was indistinguishable from what Haight-Ashbury would later become, filled with health food shops,

occult book stores hawking the *I Ching*, and *Naturmenschen*, "Mr. Naturals" who would walk about in long hair, beads, sandals, and robes in order to "get back to nature."

The dominant influence in the area came from Dr. Otto Gross, a student of Freud and friend of Carl Jung, who had been part of Max Weber's circle when Frankfurt School founder Lukacs was also a member. Gross took Bachofen to its logical extremes, and, in the words of historian Martin Green, "is said to have adopted Babylon as his civilization, in opposition to that of Judeo-Christian Europe. . . . [I]f Jezebel had not been defeated



Bettmann Archive

Hermann Hesse's occult novels set the stage for New Age mysticism.

Above right: D.H. Lawrence and wife Frieda. His novels sought liberation from the "repressive family." Later, he championed the Aztec god Quetzlcoatl.



UPI/Bettmann

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by Elijah, world history would have been different and better. Jezebel was Babylon, love religion, Astartē, Ashtoreth; by killing her, Jewish monotheistic moralism drove pleasure from the world.”

Gross’s solution was to recreate the cult of Astartē in order to start a sexual revolution and destroy the bourgeois, patriarchal family. Among the members of his cult were: **Frieda and D.H. Lawrence**; **Franz Kafka**; **Franz Werfel**, the novelist who later came to Hollywood and wrote *The Song of Bernadette*; philosopher **Martin Buber**; **Alma Mahler**, the wife of composer Gustave Mahler, and later the liaison of Walter Gropius,

Oskar Kokoschka, and Franz Werfel; among others. The Ordo Templis Orientalis (OTO), the occult fraternity set up by Satanist **Aleister Crowley**, had its only female lodge at Ascona.

It is sobering to realize the number of intellectuals now worshipped as cultural heroes who were influenced by the New Age madness in Ascona—including almost all the authors who enjoyed a major revival in America in the 1960’s and 1970’s. The place and its philosophy figures highly in the works of not only Lawrence, Kafka, and Werfel, but also Nobel Prize winners **Gerhardt Hauptmann** and **Hermann Hesse**, **H.G.**

Wells, **Max Brod**, **Stefan George**, and the poets **Rainer Maria Rilke** and **Gustav Landauer**. In 1935 Ascona became the headquarters for Carl Jung’s annual Eranos Conference to popularize gnosticism.

Ascona was also the place of creation for most of what we now call modern dance. It was headquarters to **Rudolf von Laban**, inventor of the most popular form of dance notation, and **Mary Wigman**. **Isadora Duncan** was a frequent visitor. Laban and Wigman, like Duncan, sought to replace the formal geometries of classical ballet with re-creations of cult dances which would be capable of ritualistically dredging up the primordial racial memories of the audience. When the Nazis came to power, Laban became the highest dance official in the Reich, and he and Wigman created the ritual dance program for the 1936 Olympic Games in Berlin—which was filmed by Hitler’s personal director **Leni Reifentahl**, a former student of Wigman.

The peculiar occult psychoanalysis popular in Ascona was also decisive in the development of much of modern art. The Dada movement originated in nearby Zurich, but all its early figures were Asconans in mind or body, especially **Guillaume Apollinaire**, who was a particular fan of Otto Gross. When “Berlin Dada” announced its creation in 1920, its opening manifesto was published in a magazine founded by Gross.

For more on the Ascona community, see Martin Green’s *Mountain of Truth: The Counterculture Begins, Ascona 1900–1920* (Hanover and London: University Press of New England, 1986).



Ascona dancers replaced Classical ballet with cult eroticism. Isadora Duncan espoused Bolshevism; Rudolf von Laban headed up Nazi dance program. Above: Duncan with dance troupe. Left: Isadora outside Moscow dacha.



Novelist Franz Kafka.

Betmann Archive

meant that even new and unpalatable ideas could become popular by “re-naming” them through the universal homogenizer of the culture industry. As Benjamin put it,

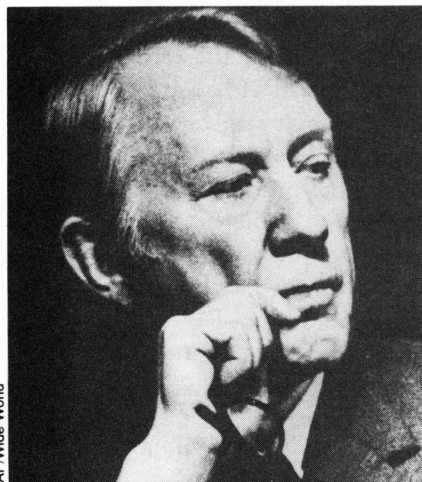
Mechanical reproduction of art changes the reaction of the masses toward art. The reactionary attitude toward a Picasso painting changes into a progressive reaction toward a Chaplin movie. The progressive reaction is characterized by the direct, intimate fusion of visual and emotional enjoyment with the orientation of the expert. . . . With regard to the screen, the critical and receptive attitudes of the public coincide. The decisive reason for this is that the individual reactions are predetermined by the mass audience response they are about to produce, and this is nowhere more pronounced than in the film.

At the same time, the magic power of the media could be used to re-define previous ideas. “Shakespeare, Rembrandt, Beethoven will all make films,” concluded Benjamin, quoting the French film pioneer Abel Gance, “. . . all legends, all mythologies, all myths, all founders of religions, and the very religions themselves . . . await their exposed resurrection.”

Social Control: The ‘Radio Project’

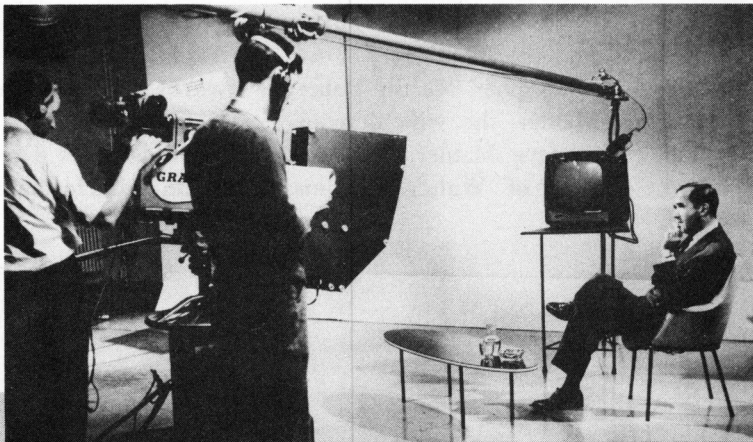
Here, then, were some potent theories of social control. The great possibilities of this Frankfurt School media work were probably the major contributing factor in the support given the I.S.R. by the bastions of the Establishment, after the Institute transferred its operations to America in 1934.

AP/Wide World



CBS president Frank Stanton. An industrial psychologist, he cut his teeth on the “Radio Project.”

Newsman Edward R. Murrow: On the set (right), and as WWII correspondent with William L. Shirer (far right).



AP/Wide World



2/Bettmann

In 1937, the Rockefeller Foundation began funding research into the social effects of new forms of mass media, particularly radio. Before World War I, radio had been a hobbyist's toy, with only 125,000 receiving sets in the entire U.S.; twenty years later, it had become the primary mode of entertainment in the country; out of 32 million American families in 1937, 27.5 million had radios—a larger percentage than had telephones, automobiles, plumbing, or electricity! Yet, almost no systematic research had been done up to this point. The Rockefeller Foundation enlisted several universities, and headquartered this network at the School of Public and International Affairs at Princeton University. Named the Office of Radio Research, it was popularly known as

“the Radio Project.”

The director of the Project was **Paul Lazarsfeld**, the foster-son of Austrian Marxist economist Rudolph Hilferding, and a long-time collaborator of the I.S.R. from the early 1930's. Under Lazarsfeld was **Frank Stanton**, a recent Ph.D. in industrial psychology from Ohio State, who had just been made research director of Columbia Broadcasting System—a grand title but a lowly position. After World War II, Stanton became president of the CBS News Division, and ultimately president of CBS at the height of the TV network's power; he also became Chairman of the Board of the RAND Corporation, and a member of President Lyndon Johnson's “kitchen cabinet.” Among the Project's researchers were **Herta Herzog**, who married Lazarsfeld and became the first director of research for the Voice of America; and **Hazel Gaudet**, who became one of the nation's leading political pollsters. Theodor Adorno was named chief of the Project's music section.

Despite the official gloss, the activities of the Radio Project make it clear that its purpose was to test empirically the Adorno-Benjamin thesis that the net effect of the mass media could be to atomize and increase lability—what people would later call “brainwashing.”

Soap Operas & Invasion from Mars

The first studies were promising. Herta Herzog produced “On Borrowed Experiences,” the first comprehensive research on soap operas. The “serial radio drama” format was first used in 1929, on the inspiration of the old, cliff-hanger “Perils of Pauline” film serial. Because these little radio plays were highly melodramatic, they became popularly identified with Italian grand opera; because they were often sponsored by soap manufacturers, they ended up with the generic name, “soap opera.”

Until Herzog's work, it was thought that the immense popularity of this format was largely with women of the lowest socioeconomic status who, in the restricted circumstances of their lives, needed a helpful escape to exotic places and romantic situations. A typical article from that period by two University of Chicago psychologists, “The Radio Day-Time Serial: Symbol Analysis” published in the *Genetic Psychology Monographs*, solemnly emphasized the positive, claiming that the soaps “function very much like the folk tale, expressing the hopes and fears of its female audience, and on the whole contribute to the integration of their lives into the world in which they live.”

Herzog found that there was, in fact, no correlation to socioeconomic status. What is more, there was surprisingly little correlation to content. The key factor—as



AP/Wide World



AP/Wide World



NBC president Sylvester “Pat” Weaver.



Bettmann Archive

By the 1960's, the Radio Project transferred the public's addiction to soap operas, to political reality. Above: ABC's *One Life to Live*. Right: filming anti-Vietnam War protesters.

AP/Wide World



Adorno and Benjamin's theories suggested it would be—was the *form* itself of the serial; women were being effectively addicted to the format, not so much to be entertained or to escape, but to “find out what happens next week.” In fact, Herzog found, you could almost double the listenership of a radio play by dividing it into segments.

Modern readers will immediately recognize that this was not a lesson lost on the entertainment industry. Nowadays, the serial format has spread to children's programming and high-budget prime time shows. The most widely watched shows in the history of television remain the “Who Killed JR?” installment of *Dallas*, and the final episode of *M*A*S*H*, both of which were premised on a “what happens next?” format. Even feature films, like the *Star Wars* and *Back to the Future* trilogies, are now produced as serials, in order to lock in a viewership for the later installments. The humble daytime soap also retains its addictive qualities in the current age: 70% of all American women over eighteen now watch at least two of these shows each day, and there

is a fast-growing viewership among men and college students of both sexes.

The Radio Project's next major study was an investigation into the effects of Orson Welles' Halloween 1938 radioplay based on H.G. Wells' *War of the Worlds*. Six million people heard the broadcast realistically describing a Martian invasion force landing in rural New Jersey. Despite repeated and clear statements that the show was fictional, approximately 25% of the listeners thought it was real, some panicking outright. The Radio Project researchers found that a majority of the people who panicked did not think that men from Mars had invaded; they actually thought that the *Germans* had invaded.

It happened this way. The listeners had been psychologically pre-conditioned by radio reports from the Munich crisis earlier that year. During that crisis, CBS's man in Europe, Edward R. Murrow, hit upon the idea of breaking into regular programming to present short news bulletins. For the first time in broadcasting, news was presented not in longer analytical pieces, but in short clips—what we now call “audio bites.” At the height of

the crisis, these flashes got so numerous, that, in the words of Murrow's producer **Fred Friendly**, "news bulletins were interrupting news bulletins." As the listeners thought that the world was moving to the brink of war, CBS ratings rose dramatically. When Welles did his fictional broadcast later, after the crisis had receded, he used this news bulletin technique to give things verisimilitude: he started the broadcast by faking a standard dance-music program, which kept getting interrupted by increasingly terrifying "on the scene reports" from New Jersey. Listeners who panicked, reacted not to content, but to format; they heard "We interrupt this program for an emergency bulletin," and "invasion," and immediately concluded that Hitler had invaded. The soap opera technique, transposed to the news, had worked on a vast and unexpected scale.

Little Annie & the 'Wagnerian Dream'

In 1939, one of the numbers of the quarterly *Journal of Applied Psychology* was handed over to Adorno and the Radio Project to publish some of their findings. Their conclusion was that Americans had, over the last twenty years, become "radio-minded," and that their listening had become so fragmented that repetition of format was the key to popularity. The play list determined the "hits"—a truth well known to organized crime, both then and now—and repetition could make any form of music or any performer, even a classical music performer, a "star." As long as a familiar form or context was retained, almost any content would become acceptable. "Not only are hit songs, stars, and soap operas cyclically recurrent and rigidly invariable types," said Adorno, summarizing this material a few years later, "but the specific content of the entertainment itself is derived from them and only appears to change. The details are interchangeable."

The crowning achievement of the Radio Project was "Little Annie," officially titled the Stanton-Lazersfeld Program Analyzer. Radio Project research had shown that all previous methods of preview polling were ineffectual. Up to that point, a preview audience listened to a show or watched a film, and then was asked general questions: did you like the show? what did you think of so-and-so's performance?

The Radio Project realized that this method did not take into account the test audience's atomized perception of the subject, and demanded that they make a rational analysis of what was intended to be an irrational experience. So, the Project created a device in which each test audience member was supplied with a type of rheostat on which he could register the intensity of his likes or

dislikes on a moment-to-moment basis. By comparing the individual graphs produced by the device, the operators could determine, not if the audience liked the whole show—which was irrelevant—but, which situations or characters produced a positive, if momentary, feeling state.

Little Annie transformed radio, film, and ultimately television programming. CBS still maintains program analyzer facilities in Hollywood and New York; it is said that results correlate 85% to ratings. Other networks and film studios have similar operations. This kind of analysis is responsible for the uncanny feeling you get when, seeing a new film or TV show, you think you have seen it all before. You have, many times. If a program analyzer indicates that, for instance, audiences were particularly titillated by a short scene in a World War II drama showing a certain type of actor kissing a certain type of actress, then that scene format will be worked into dozens of screenplays—transposed to the Middle Ages, to outer space, etc., etc.

The Radio Project also realized that television had the potential to intensify all of the effects that they had studied. TV technology had been around for some years, and had been exhibited at the 1936 World's Fair in New York, but the only person to attempt serious utilization of the medium had been Adolf Hitler. The Nazis broadcast events from the 1936 Olympic Games "live" to communal viewing rooms around Germany; they were trying to expand on their great success in using radio to Nazify all aspects of German culture. Further plans for German TV development were sidetracked by war preparations.

Adorno understood this potential perfectly, writing in 1944:

Television aims at the synthesis of radio and film, and is held up only because the interested parties have not yet reached agreement, but its consequences will be quite enormous and promise to intensify the impoverishment of aesthetic matter so drastically, that by tomorrow the thinly veiled identity of all industrial culture products can come triumphantly out in the open, derisively fulfilling the Wagnerian dream of the *Gesamtkunstwerk*—the fusion of all the arts in one work.

The obvious point is this: the profoundly irrational forms of modern entertainment—the stupid and eroticized content of most TV and films, the fact that your local Classical music radio station programs Stravinsky next to Mozart—don't have to be that way. They were designed to be that way. The design was so successful, that today no one even questions the reasons or the origins.

The New Age Paradigm Shift

The Frankfurt School's original 1930's survey work, including the "authoritarian personality," was based on psychoanalytic categories developed by Erich Fromm. Fromm derived these categories from the theories of J.J. Bachofen, a collaborator of Nietzsche and Richard Wagner, who claimed that human civilization was originally "matriarchal." This primordial period of "gynocratic democracy" and dominance of the Magna Mater (Great Mother) cult, said Bachofen, was submerged by the development of rational, authoritarian "patriarchism," including monotheistic religion. Later, Fromm utilized this theory to claim that support for the nuclear family was evidence of authoritarian tendencies.

In 1970, forty years after he first proclaimed the importance of Bachofen's theory, Fromm surveyed how far things had developed. He listed seven "social-psychological changes" which indicated the advance of matriarchism over patriarchy:

- "The failure of the patriarchal-authoritarian system to fulfill its function," including the prevention of pollution;
- "Democratic revolutions" which operate on the basis of "manipulated consent";
- "The women's revolution";
- "Children's and adolescents' revolution," based on the work of Benjamin Spock and others, allowing children new, and more-adequate ways to express rebellion;
- The rise of the radical youth movement, which fully embraced Bachofen, in its emphasis on group sex, loose family structure, and unisex clothing and behaviors;
- The increasing use of Bachofen by professionals to correct Freud's overly-sexual analysis of the mother-son relationship—this would make Freudianism less threatening and more palatable to the general population;
- "The vision of the consumer paradise. . . . In this vision, technique assumes the characteristics of the Great Mother, a technical instead of a natural one, who nurses her children and pacifies them with a never-ceasing lullaby (in the form of radio and television). In the process, man becomes emotionally an infant, feeling secure in the hope that mother's breasts will always supply abundant milk, and that decisions need no longer be made by the individual."

III. Creating Public Opinion: The Authoritarian Personality Bogeyman and the OSS

The efforts of the Radio Project conspirators to manipulate the population, spawned the modern pseudoscience of public opinion polling, in order to gain greater control over the methods they were developing.

Today, public opinion polls, like the television news, have been completely integrated into our society. A "scientific survey" of what people are said to think about an issue can be produced in less than twenty-four hours. Some campaigns for high political office are completely shaped by polls; in fact, many politicians try to create issues which are themselves meaningless, but which they know will look good in the polls, purely for the purpose of enhancing their image as "popular." Important policy decisions are made, even before the actual vote of the citizenry or the legislature, by poll results. Newspapers will occasionally write pious editorials calling on people to think for themselves, even as the newspaper's business agent sends a check to the local polling organization.

The idea of "public opinion" is not new, of course. Plato spoke against it in his *Republic* over two millennia ago; Alexis de Tocqueville wrote at length of its influence over America in the early nineteenth century. But, nobody thought to *measure* public opinion before the twentieth century, and nobody before the 1930's thought to use those measurements for decision-making.

It is useful to pause and reflect on the whole concept. The belief that public opinion can be a determinant of truth is philosophically insane. It precludes the idea of the rational individual mind. Every individual mind contains the divine spark of reason, and is thus capable of scientific discovery, and understanding the discoveries of others. The individual mind is one of the few things that cannot, therefore, be "averaged." Consider: at the moment of creative discovery, it is possible, if not probable, that the scientist making the discovery is the *only* person to hold that opinion about nature, whereas everyone else has a different opinion, or no opinion. One can only imagine what a "scientifically-conducted survey" on Kepler's model of the solar system would have been, shortly after he published the *Harmony of the World*: 2% for, 48% against, 50% no opinion.

These psychoanalytic survey techniques became standard, not only for the Frankfurt School, but also throughout American social science departments, particularly after the I.S.R. arrived in the United States. The

methodology was the basis of the research piece for which the Frankfurt School is most well known, the “authoritarian personality” project. In 1942, I.S.R. director **Max Horkheimer** made contact with the American Jewish Committee, which asked him to set up a Department of Scientific Research within its organization. The American Jewish Committee also provided a large grant to study anti-Semitism in the American population. “Our aim,” wrote Horkheimer in the introduction to the study, “is not merely to describe prejudice, but to explain it in order to help in its eradication. . . . Eradication means reeducation scientifically planned, on the basis of understanding scientifically arrived at.”

The A-S Scale

Ultimately, five volumes were produced for this study over the course of the late 1940’s; the most important was the last, *The Authoritarian Personality*, by Adorno, with the help of three Berkeley, California social psychologists.

In the 1930’s, Erich Fromm had devised a questionnaire to be used to analyze German workers psychoanalytically as “authoritarian,” “revolutionary,” or “ambivalent.” The heart of Adorno’s study was, once again, Fromm’s psychoanalytic scale, but with the positive end changed from a “revolutionary personality,” to a “democratic personality,” in order to make things more palatable for a postwar audience. (See box.)

Nine personality traits were tested and measured, including:

- **conventionalism**—rigid adherence to conventional, middle-class values;
- **authoritarian aggression**—the tendency to be on the look-out for, to condemn, reject, and punish, people who violate conventional values;
- **projectivity**—the disposition to believe that wild and dangerous things go on in the world;
- **sex**—exaggerated concern with sexual goings-on.

From these measurements were constructed several scales: the E Scale (ethnocentrism), the PEC Scale (political and economic conservatism), the A-S Scale (anti-Semitism), and the F Scale (fascism). Using Rensis Lickerts’ methodology of weighting results, the authors were able to tease together an empirical definition of what Adorno called “a new anthropological type,” the authoritarian personality.

The legerdemain here, as in all psychoanalytic survey work, is the assumption of a Weberian “type.” Once the type has been statistically determined, all behavior can be explained; if an anti-Semitic personality does not act

in an anti-Semitic way, then he or she has an ulterior motive for the act, or is being discontinuous. The idea that a human mind is capable of transformation, is ignored.

The results of this very study can be interpreted in diametrically different ways. One could say that the study proved that the population of the U.S. was generally conservative, did not want to abandon a capitalist economy, believed in a strong family and that sexual promiscuity should be punished, thought that the post-war world was a dangerous place, and was still suspicious of Jews (and Blacks, Roman Catholics, Orientals, etc.—unfortunately true, but correctable in a social context of economic growth and cultural optimism). On the other hand, one could take the same results and prove that anti-Jewish pogroms and Nuremburg rallies were simmering just under the surface, waiting for a new Hitler to ignite them. Which of the two interpretations you accept is a political, not a scientific, decision.

Horkheimer and Adorno firmly believed that all religions, Judaism included, were “the opiate of the masses.” Their goal was not the protection of Jews from prejudice, but the creation of a definition of authoritarianism and anti-Semitism which could be exploited to force the “scientifically planned reeducation” of Americans and Europeans away from the principles of Judeo-Christian civilization, which the Frankfurt School despised. In their theoretical writings of this period, Horkheimer and Adorno pushed the thesis to its most paranoid: just as capitalism was inherently fascist, the philosophy of Christianity itself is the source of anti-Semitism. As Horkheimer and Adorno jointly wrote in their 1947 “Elements of Anti-Semitism”:

Christ, the spirit become flesh, is the deified sorcerer. Man’s self-reflection in the absolute, the humanization of God by Christ, is the *proton pseudos* [original falsehood]. Progress beyond Judaism is coupled with the assumption that the man Jesus has become God. The reflective aspect of Christianity, the intellectualization of magic, is the root of evil.

At the same time, Horkheimer could write in a more-popularized article titled “Anti-Semitism: A Social Disease,” that “at present, the only country where there does not seem to be any kind of anti-Semitism is Russia.”[!]

This self-serving attempt to maximize paranoia was further aided by Hannah Arendt, who popularized the authoritarian personality research in her widely-read *Origins of Totalitarianism*. Arendt also added the famous rhetorical flourish about the “banality of evil” in her later *Eichmann in Jerusalem*: even a simple, shopkeeper-type like Eichmann can turn into a Nazi beast under the right

psychological circumstances—every Gentile is suspect, psychoanalytically.

It is Arendt's extreme version of the authoritarian personality thesis which is the operant philosophy of today's Cult Awareness Network (CAN), a group which works with the U.S. Justice Department and the Anti-Defamation League of the B'nai B'rith, among others. Using standard Frankfurt School method, CAN identifies political and religious groups which are its political enemies, then re-labels them as a "cult," in order to justify operations against them. (See box.)

The Public Opinion Explosion

Despite its unprovable central thesis of "psychoanalytic types," the interpretive survey methodology of the Frankfurt School became dominant in the social sciences,

and essentially remains so today. In fact, the adoption of these new, supposedly scientific techniques in the 1930's brought about an explosion in public-opinion survey use, much of it funded by Madison Avenue. The major pollsters of today—**A.C. Neilsen, George Gallup, Elmo Roper**—started in the mid-1930's, and began using the I.S.R. methods, especially given the success of the Stanton-Lazersfeld Program Analyzer. By 1936, polling activity had become sufficiently widespread to justify a trade association, the American Academy of Public Opinion Research at Princeton, headed by Lazarsfeld; at the same time, the University of Chicago created the National Opinion Research Center. In 1940, the Office of Radio Research was turned into the Bureau of Applied Social Research, a division of Columbia University, with the indefatigable Lazarsfeld as director.

After World War II, Lazarsfeld especially pioneered

The Theory of the Authoritarian Personality

The Frankfurt School devised the "authoritarian personality" profile as a weapon to be used against its political enemies. The fraud rests on the assumption that a person's actions are not important; rather, the issue is the psychological attitude of the actor—as determined by social scientists like those of the Frankfurt School. The concept is diametrically opposed to the idea of natural law and to the republican legal principles upon which the U.S. was founded; it is, in fact, fascistic, and identical to the idea of "thought crime," as described by George Orwell in *1984*, and to the theory of "volitional crime" developed by Nazi judge Roland Freisler in the early 1930's.

When the Frankfurt School was in its openly pro-Bolshevik phase, its authoritarian personality work was designed to identify people who were not sufficiently revolutionary, so that these people could be "re-educated." When the Frankfurt School expanded its research after World War II at the behest of the American Jewish Committee and the Rockefeller Foundation, its purpose was not to identify anti-Semitism; that was merely a cover story. Its goal was to measure adherence to the core beliefs of Western Judeo-Christian civilization, so that these beliefs could be characterized as "authoritarian," and discredited.

For the Frankfurt School conspirators, the worst crime was the belief that each individual was gifted with sovereign reason, which could enable him to determine what is right and wrong for the whole society; thus, to tell people that you have a reasonable idea to which they should conform, is authoritarian, paternalistic extremism.

By these standards, the judges of Socrates and Jesus were correct in condemning these two individuals (as, for example, I.F. Stone asserts in one case in his *Trial of Socrates*). It is the measure of our own cultural collapse, that this definition of authoritarianism is acceptable to most citizens, and is freely used by political operations like the Anti-Defamation League and the Cult Awareness Network to "demonize" their political enemies.

When Lyndon LaRouche and six of his colleagues faced trial on trumped-up charges in 1988, LaRouche identified that the prosecution would rely on the Frankfurt School's authoritarian personality fraud, to claim that the defendants' intentions were *inherently* criminal. During the trial, LaRouche's defense attorney attempted to demonstrate the Frankfurt School roots of the prosecution's conspiracy theory, but he was overruled by Judge Albert Bryan, Jr., who said, "I'm not going back into the early 1930's in opening statements or in the testimony of witnesses."

the use of surveys to psychoanalyze American voting behavior, and by the 1952 Presidential election, Madison Avenue advertising agencies were firmly in control of Dwight Eisenhower's campaign, utilizing Lazarsfeld's work. Nineteen fifty-two was also the first election under the influence of television, which, as Adorno had predicted eight years earlier, had grown to incredible influence in a very short time. Batten, Barton, Durstine & Osborne—the fabled “BBD&O” ad agency—designed Ike's campaign appearances entirely for the TV cameras, and as carefully as Hitler's Nuremberg rallies; one-minute “spot” advertisements were pioneered to cater to the survey-determined needs of the voters.

The snowball has not stopped rolling since. The entire development of television and advertising in the 1950's and 1960's was pioneered by men and women who were trained in the Frankfurt School's techniques of mass alienation. Frank Stanton went directly from the Radio Project to become the single most-important leader of modern television. Stanton's chief rival in the formative period of TV was NBC's **Sylvester “Pat” Weaver**; after a Ph.D. in “listening behavior,” Weaver worked with the Program Analyzer in the late 1930's, before becoming a Young & Rubicam vice-president, then NBC's director of programming, and ultimately the network's president. Stanton and Weaver's stories are typical.

Today, the men and women who run the networks, the ad agencies, and the polling organizations, even if they have never heard of Theodor Adorno, firmly believe in Adorno's theory that the media can, and should, turn all they touch into “football.” Coverage of the 1991 Gulf War should make that clear.

The technique of mass media and advertising developed by the Frankfurt School now effectively controls American political campaigning. Campaigns are no longer based on political programs, but actually on alienation. Petty gripes and irrational fears are identified by psychoanalytic survey, to be transmogrified into “issues” to be catered to; the “Willy Horton” ads of the 1988 Presidential campaign, and the “flag-burning amendment,” are but two recent examples. Issues that will determine the future of our civilization, are scrupulously reduced to photo opportunities and audio bites—like Ed Murrow's original 1930's radio reports—where the dramatic effect is maximized, and the idea content is zero.

Who Is the Enemy?

Part of the influence of the authoritarian personality hoax in our own day also derives from the fact that, incredibly, the Frankfurt School and its theories were

officially accepted by the U.S. government during World War II, and these Cominternists were responsible for determining who were America's wartime, and *postwar*, enemies.

In 1942, the Office of Strategic Services, America's hastily-constructed espionage and covert operations unit, asked former Harvard president James Baxter to form a Research and Analysis (R&A) Branch under the group's Intelligence Division. By 1944, the R&A Branch had collected such a large and prestigious group of emigré scholars that H. Stuart Hughes, then a young Ph.D., said that working for it was “a second graduate education” at government expense. The Central European Section was headed by historian **Carl Schorske**; under him, in the all-important Germany/Austria Section, was **Franz Neumann**, as section chief, with **Herbert Marcuse**, **Paul Baran**, and **Otto Kirchheimer**, all I.S.R. veterans. **Leo Lowenthal** headed the German-language section of the Office of War Information; **Sophie Marcuse**, Marcuse's wife, worked at the Office of Naval Intelligence. Also at the R&A Branch were: **Siegfried Kracauer**, Adorno's old Kant instructor, now a film theorist; **Norman O. Brown**, who would become famous in the 1960's by combining Marcuse's hedonism theory with **Wilhelm Reich's** orgone therapy to popularize polymorphous perversity; **Barrington Moore, Jr.**, later a philosophy professor who would co-author a book with Marcuse; **Gregory Bateson**, the husband of anthropologist **Margaret Mead** (who wrote for the Frankfurt School's journal); and **Arthur Schlesinger**, the historian who joined the Kennedy Administration.

Marcuse's first assignment was to head a team to identify both those who would be tried as war criminals after the war, and also those who were potential leaders of postwar Germany. In 1944, Marcuse, Neumann, and Kirchheimer wrote the *Denazification Guide*, which was later issued to officers of the U.S. Armed Forces occupying Germany, to help them identify and suppress pro-Nazi behaviors. After the armistice, the R&A Branch sent representatives to work as intelligence liaisons with the various occupying powers; Marcuse was assigned the U.S. Zone, Kirchheimer the French, and Barrington Moore the Soviet. In the summer of 1945, Neumann left to become chief of research for the Nuremberg Tribunal. Marcuse remained in and around U.S. intelligence into the early 1950's, rising to the chief of the Central European Branch of the State Department's Office of Intelligence Research, an office formally charged with “planning and implementing a program of positive-intelligence research . . . to meet the intelligence requirements of the Central Intelligence Agency and other authorized agencies.”

AP/Wide World: Alfred Bernheim



Hannah Arendt, popularizer of the "authoritarian personality."

Herbert Marcuse, OSS officer turned revolutionary, addresses students.



OSS anthropologist Gregory Bateson, with first wife Margaret Mead. Bateson spearheaded the CIA's MK-Ultra hallucinogen project.

Fred Roll



During his tenure as a U.S. government official, Marcuse supported the division of Germany into East and West, noting that this would prevent an alliance between the newly liberated leftwing parties and the old, conservative industrial and business layers. In 1949, he produced a 532-page report, "The Potentials of World Communism" (declassified only in 1978), which suggested that the Marshall Plan economic stabilization of Europe would limit the recruitment potential of Western Europe's Communist parties to acceptable levels, causing a period of hostile co-existence with the Soviet Union, marked by confrontation only in faraway places like Latin America and Indochina—in all, a surprisingly accurate forecast. Marcuse left the State Department with a Rockefeller Foundation grant to work with the various Soviet Studies departments which were set up at many of America's top universities after the war, largely by R&A Branch veterans.

At the same time, Max Horkheimer was doing even greater damage. As part of the denazification of Germany suggested by the R&A Branch, U.S. High Commissioner for Germany John J. McCloy, using personal discretionary funds, brought Horkheimer back to Germany to reform the German university system. In fact, McCloy asked President Truman and Congress to pass a bill granting Horkheimer, who had become a natural-

ized American, dual citizenship; thus, for a brief period, Horkheimer was the only person in the world to hold both German and U.S. citizenship. In Germany, Horkheimer began the spadework for the full-blown revival of the Frankfurt School in that nation in the late 1950's, including the training of a whole new generation of anti-Western Civilization scholars like **Hans-Georg Gadamer** and **Jürgen Habermas**, who would have such destructive influence in 1960's Germany.

In a period of American history when some individuals were being hounded into unemployment and suicide for the faintest aroma of leftism, Frankfurt School veterans—all with superb Comintern credentials—led what can only be called charmed lives. America had, to an incredible extent, handed over the determination of who were the nation's enemies, to the nation's own worst enemies.

IV. The Aristotelian *Eros*: Marcuse and the CIA's Drug Counterculture

In 1989, Hans-Georg Gadamer, a protégé of Martin Heidegger and the last of the original Frankfurt School generation, was asked to provide an appreciation of his own work for the German newspaper, *Frankfurter Allgemeine Zeitung*. He wrote,

One has to conceive of Aristotle's ethics as a true fulfillment of the Socratic challenge, which Plato had placed at the center of his dialogues on the Socratic question of the good. . . . Plato described the idea of the good . . . as the ultimate and highest idea, which is supposedly the highest principle of being for the universe, the state, and the human soul. Against this Aristotle opposed a decisive critique, under the famous formula, "Plato is my friend, but the truth is my friend even more." He denied that one could consider the idea of the good as a universal principle of being, which is supposed to hold in the same way for theoretical knowledge as for practical knowledge and human activity.

This statement not only succinctly states the underlying philosophy of the Frankfurt School, it also suggests an inflection point around which we can order much of the philosophical combat of the last two millennia. In the simplest terms, the Aristotelian correction of Plato sunders physics from metaphysics, relegating the Good

to a mere object of speculation about which "our knowledge remains only a hypothesis," in the words of Wilhelm Dilthey, a follower of von Savigny's historical school and the Frankfurt School's favorite philosopher. Our knowledge of the "real world," as Dilthey, Nietzsche, and other precursors of the Frankfurt School were wont to emphasize, becomes *erotic*, in the broadest sense of that term.

The universe becomes a collection of things which each operate on the basis of their own natures (that is, genetically), and through interaction between themselves (that is, mechanistically). Science becomes the deduction of the appropriate categories of these natures and interactions. Since the human mind is merely a sensorium, waiting for the Newtonian apple to jar it into deduction, humanity's relationship to the world (and vice versa) becomes an erotic attachment to objects. The comprehension of the universal—the mind's seeking to be the living image of the living God—is therefore illusory. That universal either does not exist, or it exists incomprehensibly as a *deus ex machina*; that is, the Divine exists as a superaddition to the physical universe—God is really Zeus, flinging thunderbolts into the world from some outside location. (Or, perhaps more appropriately: God is really Cupid, letting loose golden arrows to make objects attract, and leaden arrows to make objects repel.)

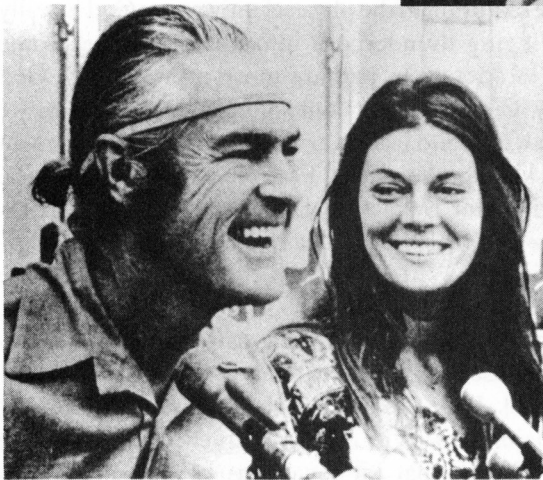
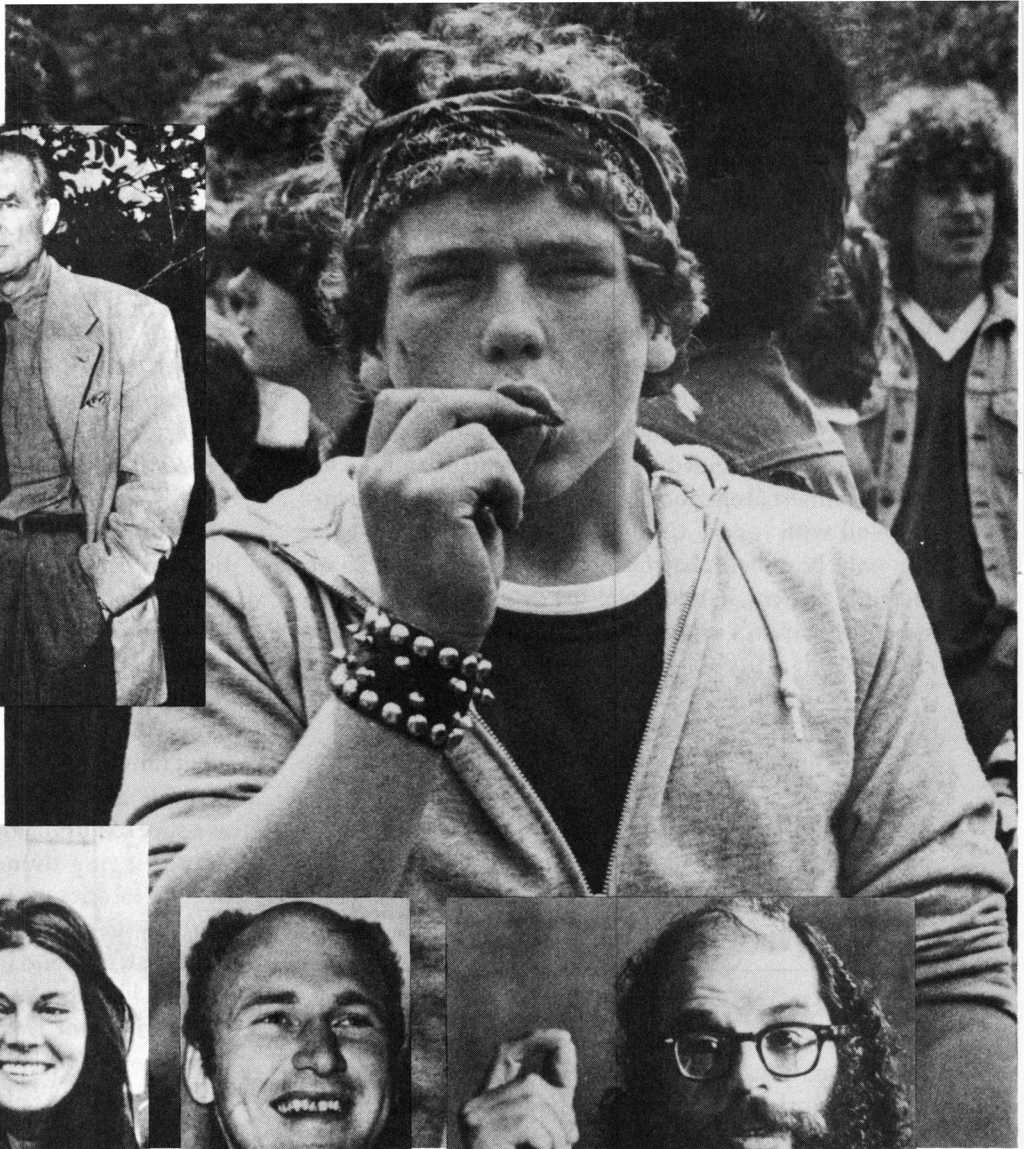
The key to the entire Frankfurt School program, from originator Lukacs on, is the "liberation" of Aristotelian *eros*, to make individual feeling states psychologically primary. When the I.S.R. leaders arrived in the United States in the mid-1930's, they exulted that here was a place which had no adequate philosophical defenses against their brand of *Kulturpessimismus* [cultural pessimism]. However, although the Frankfurt School made major inroads in American intellectual life before World War II, that influence was largely confined to academia and to radio; and radio, although important, did not yet have the overwhelming influence on social life that it would acquire during the war. Furthermore, America's mobilization for the war, and the victory against fascism, sidetracked the Frankfurt School schedule; America in 1945 was almost sublimely optimistic, with a population firmly convinced that a mobilized republic, backed by science and technology, could do just about anything.

The fifteen years after the war, however, saw the domination of family life by the radio and television shaped by the Frankfurt School, in a period of political erosion in which the great positive potential of America degenerated to a purely negative posture against the real and, oftentimes manipulated, threat of the Soviet Union. At the same time, hundreds of thousands of the young

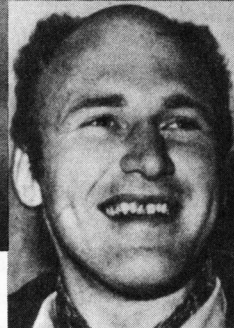


AP/World Wide Photos

Aldous Huxley wrote psychedelic manifesto Doors of Perception, with wife Laura.



Bettman Archives



Bettman Archives



EIRNS

AP/World Wide Photos

CIA psychedelic revolutionaries: Timothy Leary, Ken Kesey, Allen Ginsberg.

generation—the so-called baby boomers—were entering college and being exposed to the Frankfurt School’s poison, either directly or indirectly. It is illustrative, that by 1960 sociology had become the most popular course of study in American universities.

Indeed, when one looks at the first stirrings of the student rebellion at the beginning of the 1960’s, like the speeches of the Berkeley Free Speech Movement or the Port Huron Statement which founded the Students for a Democratic Society, one is struck by how devoid of actual content these discussions were. There is much anxiety about being made to conform to the system—“I am a human being; do not fold, spindle, or mutilate” went an early Berkeley slogan—but it is clear that the

“problems” cited derive much more from required sociology textbooks, than from the real needs of the society.

The CIA’s Psychedelic Revolution

The simmering unrest on campus in 1960 might well have passed or had a positive outcome, were it not for the traumatic decapitation of the nation through the Kennedy assassination, plus the simultaneous introduction of widespread drug use. Drugs had always been an “analytical tool” of the nineteenth century Romantics, like the French Symbolists, and were popular among the European and American Bohemian fringe well into the post-World War II period. But, in the second half of the

1950's, the CIA and allied intelligence services began extensive experimentation with the hallucinogen LSD to investigate its potential for social control.

It has now been documented that millions of doses of the chemical were produced and disseminated under the aegis of the CIA's Operation MK-Ultra. LSD became the drug of choice within the agency itself, and was passed out freely to friends of the family, including a substantial number of OSS veterans. For instance, it was OSS Research and Analysis Branch veteran Gregory Bateson who "turned on" the Beat poet **Allen Ginsberg** to a U.S. Navy LSD experiment in Palo Alto, California. Not only Ginsberg, but novelist **Ken Kesey** and the original members of the Grateful Dead rock group opened the doors of perception courtesy of the Navy. The guru of the "psychedelic revolution," **Timothy Leary**, first heard about hallucinogens in 1957 from *Life* magazine (whose publisher, **Henry Luce**, was often given government acid, like many other opinion shapers), and began his career as a CIA contract employee; at a 1977 "reunion" of acid pioneers, Leary openly admitted, "everything I am, I owe to the foresight of the CIA."

Hallucinogens have the singular effect of making the victim asocial, totally self-centered, and concerned with objects. Even the most banal objects take on the "aura" which Benjamin had talked about, and become timeless and delusionarily profound. In other words, hallucinogens instantaneously achieve a state of mind identical to that prescribed by the Frankfurt School theories. And, the popularization of these chemicals created a vast psychological lability for bringing those theories into practice.

Thus, the situation at the beginning of the 1960's represented a brilliant re-entry point for the Frankfurt School, and it was fully exploited. One of the crowning ironies of the "Now Generation" of 1964 on, is that for all its protestations of utter modernity, none of its ideas or artifacts was less than thirty years old. The political theory came completely from the Frankfurt School; **Lucien Goldmann**, a French radical who was a visiting professor at Columbia in 1968, was absolutely correct when he said of Herbert Marcuse in 1969 that "the student movements . . . found in his works and ultimately *in his works alone* the theoretical formulation of their problems and aspirations [emphasis in original]."

The long hair and sandals, the free love communes, the macrobiotic food, the liberated lifestyles, had been designed at the turn of the century, and thoroughly field-tested by various, Frankfurt School-connected New Age social experiments like the Ascona commune before 1920. (See box.) Even Tom Hayden's defiant "Never trust anyone over thirty," was merely a less-urbane ver-

sion of Rupert Brooke's 1905, "Nobody over thirty is worth talking to." The social planners who shaped the 1960's simply relied on already-available materials.

Eros and Civilization

The founding document of the 1960's counterculture, and that which brought the Frankfurt School's "revolutionary messianism" of the 1920's into the 1960's, was Marcuse's *Eros and Civilization*, originally published in 1955 and funded by the Rockefeller Foundation. The document masterfully sums up the Frankfurt School ideology of *Kulturpessimismus* in the concept of "dimensionality." In one of the most bizarre perversions of philosophy, Marcuse claims to derive this concept from Friedrich Schiller. Schiller, whom Marcuse purposefully misidentifies as the heir of Immanuel Kant, discerned two dimensions in humanity: a sensuous instinct and an impulse toward form. Schiller advocated the harmonization of these two instincts in man in the form of a creative play instinct.

For Marcuse, on the other hand, the only hope to escape the one-dimensionality of modern industrial society was to liberate the erotic side of man, the sensuous instinct, in rebellion against "technological rationality." As Marcuse would say later (1964) in his *One-Dimensional Man*, "A comfortable, smooth, reasonable, democratic unfreedom prevails in advanced industrial civilization, a token of technical progress."

This erotic liberation he misidentifies with Schiller's "play instinct," which, rather than being erotic, is an expression of charity, the higher concept of love associated with true creativity. Marcuse's contrary theory of erotic liberation is something implicit in **Sigmund Freud**, but not explicitly emphasized, except for some Freudian renegades like **Wilhelm Reich** and, to a certain extent, **Carl Jung**. Every aspect of culture in the West, including reason itself, says Marcuse, acts to repress this: "The totalitarian universe of technological rationality is the latest transmutation of the idea of reason." Or: "Auschwitz continues to haunt, not the memory but the accomplishments of man—the space flights, the rockets and missiles, the pretty electronics plants. . . ."

This erotic liberation should take the form of the "Great Refusal," a total rejection of the "capitalist" monster and all his works, including "technological" reason, and "ritual-authoritarian language." As part of the Great Refusal, mankind should develop an "aesthetic ethos," turning life into an aesthetic ritual, a "life-style" (a nonsense phrase which came into the language in the 1960's under Marcuse's influence).

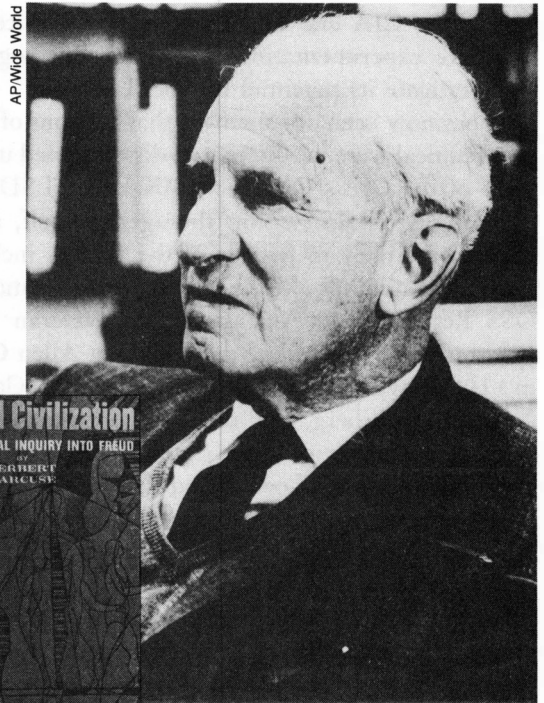
With Marcuse representing the point of the wedge,

the 1960's were filled with obtuse intellectual justifications of contentless adolescent sexual rebellion. *Eros and Civilization* was reissued as an inexpensive paperback in 1961, and ran through several editions; in the preface to the 1966 edition, Marcuse added that the new slogan, "Make Love, Not War," was exactly what he was talking about: "The fight for *eros* is a *political* fight [emphasis in original]." In 1969, he noted that even the New Left's obsessive use of obscenities in its manifestoes was part of the Great Refusal, calling it "a systematic linguistic rebellion, which smashes the ideological context in which the words are employed and defined."

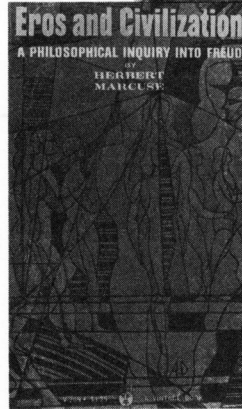
Marcuse was aided by psychoanalyst Norman O. Brown, his OSS protege, who contributed *Life Against Death* in 1959, and *Love's Body* in 1966—calling for man to shed his reasonable, "armored" ego, and replace it with a "Dionysian body ego," that would embrace the instinctual reality of polymorphous perversity, and bring man back into "union with nature." The books of Reich, who had claimed that Nazism was caused by monogamy, were re-issued. Reich had died in an American prison, jailed for taking money on the claim that cancer could be cured by rechanneling "orgone energy."

Primary education became dominated by Reich's leading follower, A.S. Neill, a Theosophical cult member of the 1930's and militant atheist, whose educational theories demanded that students be taught to rebel against teachers who are, by nature, authoritarian. Neill's book *Summerhill* sold 24,000 copies in 1960, rising to 100,000 in 1968, and 2 million in 1970; by 1970, it was required reading in 600 university courses, making it one of the most influential education texts of the period, and still a benchmark for recent writers on the subject.

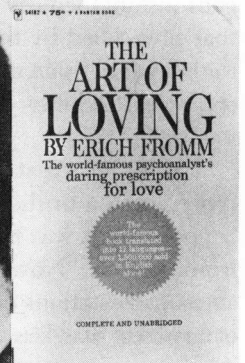
Marcuse led the way for the complete revival of the rest of the Frankfurt School theorists, re-introducing



AP/Wide World

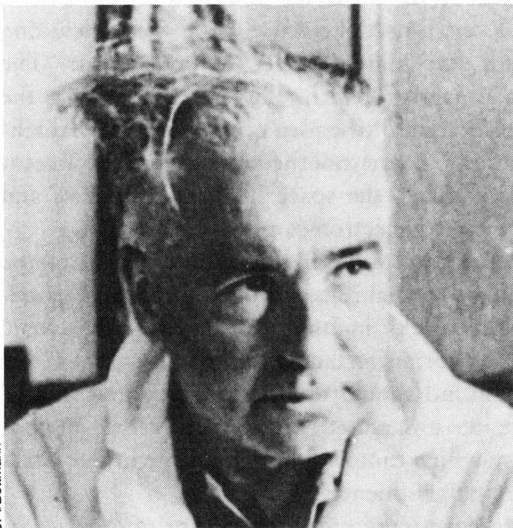


Marcuse, champion of sexual liberation, with his *Eros and Civilization*.



AP/Wide World

Psychoanalyst Erich Fromm, colleague of Marcuse, with his *The Art of Loving*.



UPI/Beitmann



In twenty-five years of reading and reviewing books on education, I have yet to find one so stimulating, exciting, and challenging as the story of SUMMERHILL. I commend this book to all educators and laymen who are interested in children.

DR. HERBERT MARCUSE
 Translated by Lavinia Diller, with a foreword by Erich Fromm, M.D., American University, Washington, D.C.
 1960 - 1966 Edition, New York: Harper & Row (1970)

Psychotherapist Wilhelm Reich was personal therapist to educator A.S. Neill. Neill's best-selling *Summerhill* had foreword by Fromm.

the long-forgotten Lukacs to America. Marcuse himself became the lightning rod for attacks on the counterculture, and was regularly attacked by such sources as the Soviet daily *Pravda*, and then-California Governor Ronald Reagan. The only critique of any merit at the time, however, was one by Pope Paul VI, who in 1969 named Marcuse (an extraordinary step, as the Vatican usually refrains from formal denunciations of living individuals), along with Freud, for their justification of “disgusting and unbridled expressions of eroticism”; and called Marcuse’s theory of liberation, “the theory which opens the way for license cloaked as liberty . . . an aberration of instinct.”

The eroticism of the counterculture meant much more than free love and a violent attack on the nuclear family. It also meant the legitimization of philosophical *eros*. People were trained to see themselves as objects, determined by their “natures.” The importance of the individual as a person gifted with the divine spark of creativity, and capable of acting upon all human civilization, was replaced by the idea that the person is important because he or she is black, or a woman, or feels homosexual impulses. This explains the deformation of the civil rights movement into a “black power” movement, and the transformation of the legitimate issue of civil rights for women into feminism. Discussion of women’s civil rights was forced into being just another “liberation cult,” complete with bra-burning and other, sometimes openly Astarte-style, rituals; a review of **Kate Millet’s** *Sexual Politics* (1970) and **Germaine Greer’s** *The Female Eunuch* (1971), demonstrates their complete reliance on Marcuse, Fromm, Reich, and other Freudian extremists.

The Bad Trip

This popularization of life as an erotic, pessimistic ritual did not abate, but in fact deepened over the twenty years leading to today; it is the basis of the horror we see around us. The heirs of Marcuse and Adorno completely dominate the universities, teaching their own students to replace reason with “Politically Correct” ritual exercises. There are very few theoretical books on arts, letters, or language published today in the United States or Europe which do not openly acknowledge their debt to the Frankfurt School.

The witchhunt on today’s campuses is merely the implementation of Marcuse’s concept of “repressive toleration”—“tolerance for movements from the left, but intolerance for movements from the right”—enforced by the students of the Frankfurt School, now become the professors of women’s studies and Afro-American studies. The most erudite spokesman for Afro-American

studies, for instance, Professor **Cornell West** of Princeton, publicly states that his theories are derived from Georg Lukacs.

At the same time, the ugliness so carefully nurtured by the Frankfurt School pessimists, has corrupted our highest cultural endeavors. One can hardly find a performance of a Mozart opera, which has not been utterly deformed by a director who, following Benjamin and the I.S.R., wants to “liberate the erotic subtext.” You cannot ask an orchestra to perform Schönberg and Beethoven on the same program, and maintain its integrity for the latter. And, when our highest culture becomes impotent, popular culture becomes openly bestial.

One final image: American and European children daily watch films like *Nightmare on Elm Street* and *Total Recall*, or television shows comparable to them. A typical scene in one of these will have a figure emerge from a television set; the skin of his face will realistically peel away to reveal a hideously deformed man with razor-blade fingers, fingers which start growing to several feet in length, and—suddenly—the victim is slashed to bloody ribbons.

This is not entertainment. This is the deeply paranoid hallucination of the LSD acid head. The worst of what happened in the 1960’s is now daily fare. Owing to the Frankfurt School and its co-conspirators, the West is on a “bad trip” from which it is not being allowed to come down.

The principles through which Western Judeo-Christian civilization was built, are now no longer dominant in our society; they exist only as a kind of underground resistance movement. If that resistance is ultimately submerged, then the civilization will not survive—and, in our era of incurable pandemic disease and nuclear weapons, the collapse of Western civilization will very likely take the rest of the world with it to Hell.

The way out is to create a Renaissance. If that sounds grandiose, it is nonetheless what is needed. A renaissance means, to start again; to discard the evil, and inhuman, and just plain *retarded*, and to go back, hundreds or thousands of years, to the ideas which allow humanity to grow in freedom and goodness. Once we have identified those core beliefs, we can start to rebuild civilization.

Ultimately, a new Renaissance will rely on scientists, artists, and composers, but in the first moment, it depends on seemingly ordinary people who will defend the divine spark of reason in themselves, and tolerate no less in others. Given the successes of the Frankfurt School and its New Dark Age sponsors, these ordinary individuals, with their belief in reason and the difference between right and wrong, will be “unpopular.” But, no really good idea was ever popular, in the beginning.

None come nearer to us than the Platonists
St. Augustine, *The City of God*

In the Footsteps of Socrates and Plato

by Elisabeth Hellenbroich

TO DISCUSS Plato and Aristotle today is not an abstract, academic issue. As a political movement, we are ourselves in the middle of this epistemological war which has been raging for 2,000 years. It is a war between two diametrically opposed views concerning the human mind and the universe.

Plato, the founder of philosophy and science, laid the basis for Augustine and Christian philosophy, as well as for Nicolaus of Cusa, the founder of the European Renaissance, and for Gottfried Wilhelm Leibniz. It was the Platonic method of thinking which inspired all significant discoveries made in science and art. It was Plato's concept of the republic based on natural law which served as a model for all great statesmen in history.

Diametrically opposed to Plato is Aristotle, whose main preoccupation was infiltrating Plato's Academy, and whose writings were an attempt to destroy and obfuscate Platonic thinking. Aristotelianism is a form of mental disease. Among its followers were the scholastics, the empiricists, positivists, existentialists—all having one obsession in common:

This article is based upon a speech given at a conference sponsored by the Schiller Institute on Labor Day weekend 1991 in the State of Virginia. As such, the extract format used here does not always indicate an exact quotation, but in some cases a paraphrase.

they all deny that man has the faculty for creative reasoning. They all insist that man is some form of a higher animal, whose thinking activity consists of sense perceptions. They all deny that there is a causality which governs the laws of the universe. They all were emotionally incapable of love and passion—which is the only true starting point for creative work.

Except for Lyndon LaRouche and a few excellent and courageous scientists and artists who are our friends and collaborators, we are surrounded today by the worst Aristotelian scholasticism, which would make even a Duns Scotus blush. Mister Karl Popper, the positivist, opens his mouth and says, it is arrogant and dangerous to say that man can know the laws of history and on that basis determine his future actions. Our university

professors, many of them products of the so-called critical theory of the Frankfurt School, teach the same garbage they were taught back in the 'sixties, by misanthropes like Theodor Adorno and Max Horkheimer. They keep regurgitating that man should free himself from the enslavement of rational thought, of reason, of a culture which affirmatively tells him that man is born to perfect himself and to act morally. Adorno once wrote that to be obsessed with positive values, is nothing but a cover for the underlying destructive tendencies in man. A free man, in their opin-



Plato and Aristotle, in Raphael's School of Athens.

ion, is one who can live out his instincts, who returns to pre-Christian mythologies, to animism. No wonder that one of the most celebrated scientists today is Ilya Prigogine, a Nietzschean by philosophical conviction, who believes in the cyclical world view and whose followers all praise Mother Earth—Gaia—and engage in touchy-feely sessions.

Those kinds of scientists are the ones today engaged in a witchhunt, worse than in the Middle Ages, against the scientists who discovered cold fusion, because this anomalous discovery put into question their entire axiomatic belief structure. So they denounce, they persecute. It is no different in politics. Whose word is law today? The Sophists. The ignoramuses like the Jeffrey Sachs and the Friedmanites. They cling obsessively, despite the U.S. economy's collapse, to their own assumption that there will be an upswing in the U.S. and that the Soviet Union will only find a way out by applying radical free-market measures. Yet as is, and always has been the case, the laws of the universe, the laws of history, prove to be scientifically correct; they vindicate us, who, despite being calumniated, have told the truth about the present strategic situation, and have supplied the correct answers for how change must be effected.

The problem we face, is that the majority of people echo the foolish assumptions they hear from the even more foolish so-called authorities. And only to the extent we teach them to think and judge for themselves, only if through culture we change their axioms, will we be able to break their immorality and stupidity.

So that is the portrait of our times. We, however, define ourselves as living in the tradition of Plato's Academy movement. We conceive ourselves as an inner elite. We are concerned with what is essential in politics, and very practically so: to transform our fight for correct scientific ideas into practice, by being engaged in the education of statesmen; by writing constitutions and economic programs for countries in Ibero-America, Africa, the new republics emerging from the former Soviet Union; by educating the scientists and artists in what we call the Socratic method of thinking.

We are doing precisely what Plato undertook when, in 388 B.C., he founded his Academy in Athens. The academy was the attempt to educate statesmen and lawgivers as well as scientists in the Platonic method.

Plato's Method

For this battle he led, Plato was hated, and his worst enemies were the Sophists. They were the leading current in philosophy, and all they did was declare that knowledge does not count. What counts is the appear-

ance of knowing, bluffing, and to learn the art of persuasion, rhetoric. They were the ones who had accused Plato's teacher, Socrates, claiming that he was sinning against God, because he would explore the laws of the universe. They brought him to court and sentenced him to death.

In one of his first dialogues—the *Apology*—Plato describes in a moving way what the conflict was all about. The *Apology* consists of Socrates addressing the Athenian court, among whose judges sat the Sophists. Socrates at the time was 70 years old. He says:

I am falsely accused of blaspheming against the gods and destroying our youth. You, the judges, you all know that you are lying. Let me tell you the truth about why I am put in front of the court. I am accused of searching for the truth. I am here because I am hated for doing that. If I have any wisdom, it is that I know that I don't know, and that I can discover this in others as well. I went around and met prominent statesmen and found out that they pretended to be very wise, while in reality they did not know anything. When I tried to show this to them, they began to hate me.

I did the same with the poets. I looked at their well-made poems, but I found out that rather than knowing the laws of poetry and being able to explain them, they pretended they knew. But they did not. Rather than from knowledge they created out of enthusiasm and arbitrariness. When I showed this to them, they began to hate me. It was a little bit better with the craftsmen. There I did find some people who knew what they were doing. But some thought that knowing their field, they would know everything else, and they turned out to be very stupid, because they had no judgment.

They all hated me for that, for having shown to them, that they pretend to know while not knowing, and I saw that I was wiser than they, because I do not pretend. Now I am accused of destroying the youth. I would like to know from you, Judge Meletos, if you are so concerned about this question, tell me, who makes the youth more perfect?

The laws.

You mean the judges here?

Yes I mean all judges.

And what about the audience?

Also them.

And the city councillors and the people's assembly?

Also they make the youth better.

So you say that essentially all, except me, make the Athenian youth better. Tell me, who makes the horses better, many people or only a few? It seems

‘You are disgusting, Socrates. You twist the argument in such a way that you can do most harm. . . .’

‘Yes, but first I must learn what you mean, Thrasymachus. You say justice is the advantage of the stronger. What do you mean by that?’



Illustrations by Alan Yue

only a few. Meletos, you do not say anything? What a hypocrite you are, you, who never wanted to educate the youth, you now pretend having such interest in this matter.

You want me to plea bargain or let me free if I stop looking for the truth? How could I ever do that? You think I am frightened of death? No, never. Why should I be? I know that if I am dead, it will not be me who is destroyed, but you, with this you will bring destruction upon yourselves. . . .

This reference to the *Apology* gives you the moral setting and the idea that the fight between Plato and the Sophists, upon whom Aristotle’s ideas were based, was indeed a life and death political fight.

Now let us look a bit more at Plato’s method, which as he said in his famous Seventh Letter, was in part written down by him, but mostly based on the dialogues he had with many statesmen of his time, like Dionysius of Syracuse.

All the dialogues of Plato are a demonstration of the method with which idea-concepts are formed. At its core is the *principle of hypothesis*. Knowledge is not a collection of facts and predicates, it is not opinion and enumeration of definitions, but it is solving a problem, by starting out with a challenge to the assumptions and axioms which

underlie our own judgments. The key is to demonstrate *how* man thinks, and the method by which he learns how to think. In one of his most famous dialogues, *The Republic*, Socrates, Glaucon, Polemarchus, Thrasymachus, and Cephalus are discussing the question, “What is just?”

Thrasymachus, one of the Athenian long-haired machos, wants to give Socrates a quick explanation:

I say that *justice* is nothing other than the advantage of the stronger. Well, why don’t you praise me?

First I must learn what you mean. You say the just is the advantage of the stronger. What do you mean by that, Thrasymachus? Surely you don’t assert such a thing as this: If Polydamas, the pancratist, is stronger than we are, and beef is advantageous for his body, then this food is also just and advantageous for we who are weaker than he is?

You are disgusting, Socrates. You twist the argument in such a way that you can do the most harm. Don’t you know, Socrates, that some cities are ruled tyrannically, some democratically, and some aristocratically. And isn’t in each city the ruling group the master? And each ruling group sets down laws for its own advantage: A democracy sets down democratic laws; a tyranny, tyrannical laws; and the others do the

same. And they declare that what they have set down—their own advantage—is just for the ruled, and if a man departs from it, they punish him as a law-breaker and a doer of unjust deeds.

So let us find out whether what you said is true. While I too agree that the just is something of advantage, you add to it and assert that it is the advantage of the stronger, and I don't know whether it is so. Now tell me: Don't you say, though, that it is just also to obey the rulers?

I do.

Are the rulers in their several cities infallible, or are they such as to make mistakes too?

By all means. They certainly are such as to make mistakes too.

When they put their hands to setting down laws, do they set some down correctly and some incorrectly?

I suppose so.

Is that law correct which sets down what is advantageous for themselves, and that one incorrect which sets down what is disadvantageous? Or how do you mean it?

As you say.

But whatever the rulers set down must be obeyed and carried out by those who are ruled, and this is just?

Of course.

Then according to your argument, it is just, to do not only what is advantageous for the stronger, but also the opposite, what is disadvantageous.

Thrasymachus is furious. Socrates says:

Now tell me, what do you mean by a *ruler*? Is a doctor, in the narrow sense, a money-maker, or one who cares for the sick?

One who cares for the sick.

And someone who rules over sailors? Is he not called a pilot because of sailing? And is there any advantage for each of these arts other than to be as perfect as possible? Then is it not the case that the doctor, insofar as he is a doctor, considers or commands not the doctor's advantage, but that of the sick man?

Certainly.

Then also the pilot and ruler will consider or command the benefit not of the pilot, but of the man who is a sailor and is ruled. Therefore, Thrasymachus, there is not ever anyone who holds any position of rule, insofar as he is ruler, who considers or commands his own advantage, rather than that of those who are ruled, and of which he himself is the craftsman. And this is the advantage that he looks for,

what is fitting for those who are ruled; and everything he says and does is to this end.

Thrasymachus does not know what to say. Socrates has demonstrated that the Hobbesian opinion that a state is ruled by egotistic interest, is wrong. If one looks for the true meaning of "ruler," it is the *art* of ruling for the commonweal; and that is therefore the only criterion for justice, which sets the tone for the entire investigation Socrates is conducting. Socrates continues:

The good are not willing to rule for the sake of money and honor, but for the benefit of the others in the strictest sense. And nobody voluntarily wants to rule unless necessity dictates this responsibility to him.

Now Glaucon speaks up and says:

Let me tell you what the general opinion says about justice and injustice. They say that doing injustice is naturally good, and suffering injustice is bad. Justice historically was made possible on the basis of social convention. It is a mean between what is best—doing injustice without being caught and paying a penalty—and what is worst—suffering injustice without being able to avenge oneself. Let's be clear: if people could, they would all like to be unjust. They all would like to go hog wild, commit adultery, corruption, stealing. That is the reality of today.

Socrates, already earlier in his discussion with Thrasymachus, had indicated that the ruler must necessarily follow what is best for the others, and not act for egotistical purposes. He now develops pedagogically the model of a republic, trying to show that in a just state there must necessarily be a reciprocal relationship between the individual citizen, between his soul, and the state. The true nature of the state must correspond to the true nature of the individual, Socrates says.

So then, he continues, let us ask ourselves, what is the human soul? It has, as an old story tells, three levels of consciousness. On the lowest level—the bronze level—man is nothing but a prisoner of his own infantile emotions and sense perceptions. (This level was best illustrated by Dante's *Commedia*, by the Inferno in which he puts such people.)

But a man who sees himself as an actor upon the stage, reflecting on his state of mind, begins to act based on *simple self-consciousness*. He reflects upon his own emotions, which is a fundamental precondition for whoever wishes to engage in creative work. This leads to the second level of thinking, the silver souls, who are nonetheless still caught up in deductive thinking. All their assumptions and postulates are bound to one fixed set of premises, as Thrasymachus has shown.

Challenging this fixed set of beliefs unhinges these

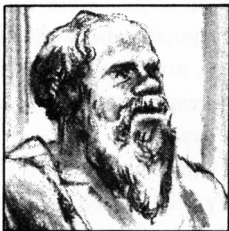
Kantians and Aristotelians. For them there is no change, no process of thought; there is only enumeration of pre-existing thoughts. Their irrational emotions are chained, as if in a prison where they rant and rave.

On a third level of thinking—the level of reason—to which the metaphor of golden soul is attached, man makes his own thinking process the object of self-conscious thought. He makes the object of his thought, the process by which, through the course of history, a series of scientific hypotheses were successively generated, leading to true scientific discoveries. He thereby grasps the causal principle which underlies all hypothesis—the *Idea of the Good* and the *One*. A just soul, as Socrates demonstrates, looks for a harmony between reason, emotions, and his will, his virtue. In such a soul, reason should be the ruler.

Plato comes to a fundamental point in his dialogue. Socrates says:

Accordingly, we can assert that in a state presided over by reason, the concern is not for particular interests, but the well-being of each and every individual, to provide the best for the common good.

Now if that is so, who should be the ruler that embodies the idea of justice? Unless the philosophers rule as kings, or those now called kings and chiefs genuinely and adequately philosophize, and political power and philosophy coincide in the same place, the cities will have no rest from their ills, nor do I think that for mankind the regime we have now described in speech will ever come forth from nature and see the light of the sun.



Idea of the Good

NOW the discussion takes another turn. What does it mean to educate a philosopher king? And what is this connection of philosophy

and power? The philosopher kings must be educated, Socrates says. They cannot be petty-minded people, but must have the will to search for truth. They cannot have existential fears, nor be selfish nor superficial people who look for recognition. The first thing they must understand is the difference between knowledge and opinion. We have to teach them music, geometry, astronomy. But the most important concept they must grasp is, what is the causality which underlies our universe, namely, what is the cause of change and becoming? It is not something one can learn and regurgitate, but it is a state of mind, on the level of reason, which must come to grips with that fundamental question: the *Idea of the Good*. Socrates says:

What might help, is the following analogy. Let us think about the visible world. We perceive this world by means of our eyes, our capacity to think, and this is rendered possible because of light, whose cause is the sun in the visible world. Now, I would call the sun an offspring of the Idea of the Good, the latter being far more important, given that it is the one fundamental causality which generates the visible as well as the intelligible world. What we see, we see with the help of our eyes and our sight, and what is the cause of sight other than the sun? Say the sun is an offspring of the Good—as the Good is in the intelligible region with respect to intelligence and what is understood, so the sun is in the visible region with respect to sight and what is seen.

Now think about the soul. When it fixes itself on that which is illuminated by truth and that which *is*, it understands, it knows. But when it fixes itself on that which is mixed with darkness, on coming into being and passing away, it opines and is dimmed, changing opinions back and forth, and does not possess intelligence.

Therefore, we should say, that what provides truth to the things known and gives power to one who knows, is the Idea of the Good. And as the cause of knowledge and truth, it can be understood as something known. So we say, the sun not only provides what is seen with the power of being seen, but also with generation, growth, and nourishment, although it itself is not generation. . . .

Therefore we say not only that *being known* is given in things known as a consequence of the Good, but also that besides, existence and being are given in them as a result of it, although the Good is not being, but is still beyond being, exceeding it in dignity and power.

Socrates takes another example to illustrate the point, which he considers the key of his entire method:

Now take a line cut in two unequal segments—one for the class that is seen, the other for the intelligible things—and cut each segment in the same proportion. Now in terms of relative clarity and obscurity, you will have one segment in the visible part for images. I mean by that first shadows, then appearance produced in water and all close-grained, smooth, bright things, and everything of the sort.

In the other segment, put that of which this first is the likeness—the animals around us, everything that grows, and the whole class of artifacts. With respect to truth or lack of truth, as the opinable is distinguished from the knowable, so the likeness is distinguished from that of which it is the likeness. Now in turn let us consider how the intelligible section should be cut.

In one part of it a soul using as images the things

that were previously imitated, is compelled to investigate on the basis of *hypotheses* and makes its way not to a beginning, but to an end. While in the other part it makes its way to a beginning, that is free from hypotheses: Starting out from hypothesis and without the images used in the other part, by means of ideas themselves, it makes its inquiry through them.

Glaucon does not grasp what he means. So Socrates explains again:

I suppose you know that those who work in geometry treat as known the odd and the even, the figures, three forms of angles. They hypothesize these things, and do not think it worthwhile to give any further account of them to themselves as though they were clear to all. Beginning from them, they go ahead with their exposition of what remains and end consistently at the object towards which their investigation was directed. . . .

Now understand the other segment of the intelligible, I mean that which argument itself grasps with the power of dialectic. It makes the *hypothesis* not beginnings but really hypotheses, i.e., it is generating a series of hypotheses as stepping stones and springboards, in order to reach what is the unhypothesized beginning of the whole. Once he has grasped that, which is the Idea of the Good, he goes back and forth.

Here the entire thesis on which the method of Plato hangs has been metaphorically described: It is the *principle of hypothesis* which is the basis of true thinking, in opposition to opinion, which is enslaved in the world of sense perceptions. Lyndon LaRouche comments on this passage in his *Science of Christian Economy*:

The hypothesis of the higher hypothesis is the *Becoming*. It is the notion of a transfinite ordering of changes moving toward increasing perfection or decreasing imperfection. It efficiently is the changeless idea of perfection which governs the process of change in the direction of increasing perfection. The *Good* is the ontological quality of *Being*, as distinct from the quality of *Becoming*.

So the power of generating hypothesis and hypothesizing this hypothesis is a true transfinite in the way successive scientific revolutions have demonstrated this. In this regard, Plato made a very fundamental hypothesis in his *Timaeus*, when he declared that elements like fire and water, air and earth, i.e., matter, can be best described geometrically as the visible universe by the five regular polyhedra: the tetrahedron, octahedron, cube, icosahedron, and the dodecahedron (which is the basis out of which the other four can be constructed geometrically).

This hypothesis became the basis for another scientific revolution, Nicolaus of Cusa's invention of the isoperimetric theorem, whereby nothing can be topologically constructed in space, but through circular action, since rotation is a topological quality of our universe. It served as the basis for Leonardo da Vinci's discovery that all living morphology is organized according to Golden Section harmonics, a springboard which led to a new hypothesis made by Kepler on the harmonic ordering of the universe as a whole, proving that its character is developing and negentropic. It led to further discoveries made by Leibniz, to Riemann's notion of the continuum and the discrete manifold, to Georg Cantor and his work on transfinite functions which subsumed all hypotheses and discoveries made before.

These discoveries on the basis of generating new sets of hypotheses, meant breaking apart a given set of axioms. They demonstrated a transformation of knowledge in a very practical way—through technological progress—from a less perfect to a more perfect conception. This cannot be described by deductive methods, but only in the way implicitly referenced by Plato in the *Parmenides* dialogue and which LaRouche develops further.

For LaRouche, the generation of a new idea, as a unified, indivisible conception in the mind of the individual, follows from the fact, that many ideas enter the mind and are transformed from a many into a new, valid, combined, but single non-divisible conception. There is nothing of the new idea in any part of those many ideas which appears to have stimulated its generation. They are the Many. The new conception is the indivisible One. The transformation of the Many into this new One, is the work of the creative processes of the individual human mind. Thus, in valid scientific discovery, the primary relationship to knowledge of the individual's creative mental processes, is to the Mind of the Creator and only by derivations to objects in the universe.

So the *Idea of the Good* is the *One*, which subsumes the *Many*, the *Becoming*, we can say. And any creative individual, by being creative, acts in a direct unmediated relationship to the Creator, the *One*. The key is *change*, which was referenced in the *Parmenides*, where Socrates asks how the Many become One, and speaks of the "blink of an eye," this wonderful moment in which motion goes over into motionlessness and motionlessness into motion. This is similar to that moment where a society moves from one technological level to a higher one.

Those who understand this concept, says Plato, should go into the caves—a metaphor Plato uses in order to describe the hell in which people who only know sense perception live, whose entire lives are spent shadow

boxing—should go down into the caves and forcefully get the prisoners there to turn their eyes outward so that they see and grasp what causality, what *Being* it is, that generates *Becoming*.

It will be a very difficult task to do that, and people might kill you for trying, Plato says, but that is the precondition for a true republic. There is no statecraft possible unless we challenge the axioms held by the citizens. And finally, with this concept of the *Idea of the Good* grasped, the idea of an eternal natural law, our philosophers then should give laws and found the state.



Aristotle on the Human Mind

ALL THAT I HAVE developed so far about Plato's method, is completely denied by his opponent Aristotle, who willfully destroyed that on which thinking is based, the principle of hypothesis. Aristotle did not write any dialogues; he was not interested in *how* man thinks but only *what* he thinks. What does Aristotle say about the human mind in his *De Anima* [*On the Soul*]?

The mind is in a sense potentially whatever is thinkable, though it is nothing until it has thought. What it thinks must be in it as characters may be said to be on a writing tablet on which as yet nothing actually stands written. This is exactly what happens with the mind.

Thinking occurs by way of *sense perception*:

Since, according to common agreement, there is nothing outside and separate in existence from sensible spatial magnitudes, the objects of thought are all in sensible forms, both abstract objects and all the states and affections of sensible things. Hence, no one can learn or understand anything in the absence of senses, and when the mind is actively aware of anything, it is necessarily aware of it along with an image, for images are like sensuous contents. . . .

While in respect of all the other senses we fall below many species of animals, in respect to touch we far excel all other species in exactness of discrimination. That is why man is the most intelligent of all animals.

In his *Posterior Analytics*, Aristotle says that scientific knowledge is knowledge of the immediate premises. We attain it by definitions:

We have already said, that scientific knowledge through demonstration is impossible unless a man know the primary immediate premises. How does man know? . . . We must possess a capacity of some sort which is at least an obvious characteristic of all animals, for they possess a congenital discriminative capacity, which is called sense perception. . . .

So our sense perception comes to be what we call memory and out of frequently repeated memories of the same things develops experience; for a number of memories constitute a single experience. From experience again . . . originates the skill of the craftsman and the knowledge of the man of science. . . .

Ergo, for Aristotle, the human mind is no different than the animal mind, except in matters of degree.

Politically, Aristotle was an oligarch through and through. He has been praised often by the Club of Rome for his concept of the state, since he made an important point of having an *autarchical* state, whose resources are limited, and which therefore must do everything to limit its population either through abortion or by introducing homosexuality, as he says in his *Politics*. Here he gives a long explanation of why slavery is natural:

The slave is a living possession and property . . . an instrument. The master is only the master of the slave: He does not belong to him, whereas the slave is not only the slave of his master, but wholly belongs to him. . . . For that some should rule and others be ruled, is a thing not only necessary, but expedient. From the hour of their birth, some are marked out for subjugation, others for rule.

Refuting Plato's concept of the philosopher king, Aristotle says:

Then ought the good to rule and have supreme power? Should the best man rule? No. . . . [The] principle to be maintained is that the multitude ought to be supreme rather than the few best. . . . For the many [plurality] of whom each individual is but an ordinary person, when they meet together may very likely be better than the few good, if regarded not individually, but collectively. For some understand one part, and some another, and among them they understand the whole.

Once you have that frame of mind, which qualifies man as above all tied to the senses, then it follows that thinking is nothing but formalistic deductive manipulation of things which are already known, and not the creation of new ideas! Therefore, Aristotle created logic. This includes, that any process of thinking start with definitions, then use the categories as reference points to

judge things, substance, quality, quantity, where, when, effect, etc. So we make judgments by connecting a subject and a predicate, in a way which says something about the subject, either affirmatively, negatively, universally, or particularly.

The example of how Aristotle comes to ideas which already exist in the given premise, is demonstrated by the introduction of the method of the *syllogism*. Since knowledge is axiomatically given, the mind only pro-

cesses it. In his *Posterior Analytics*, Aristotle starts out by saying:

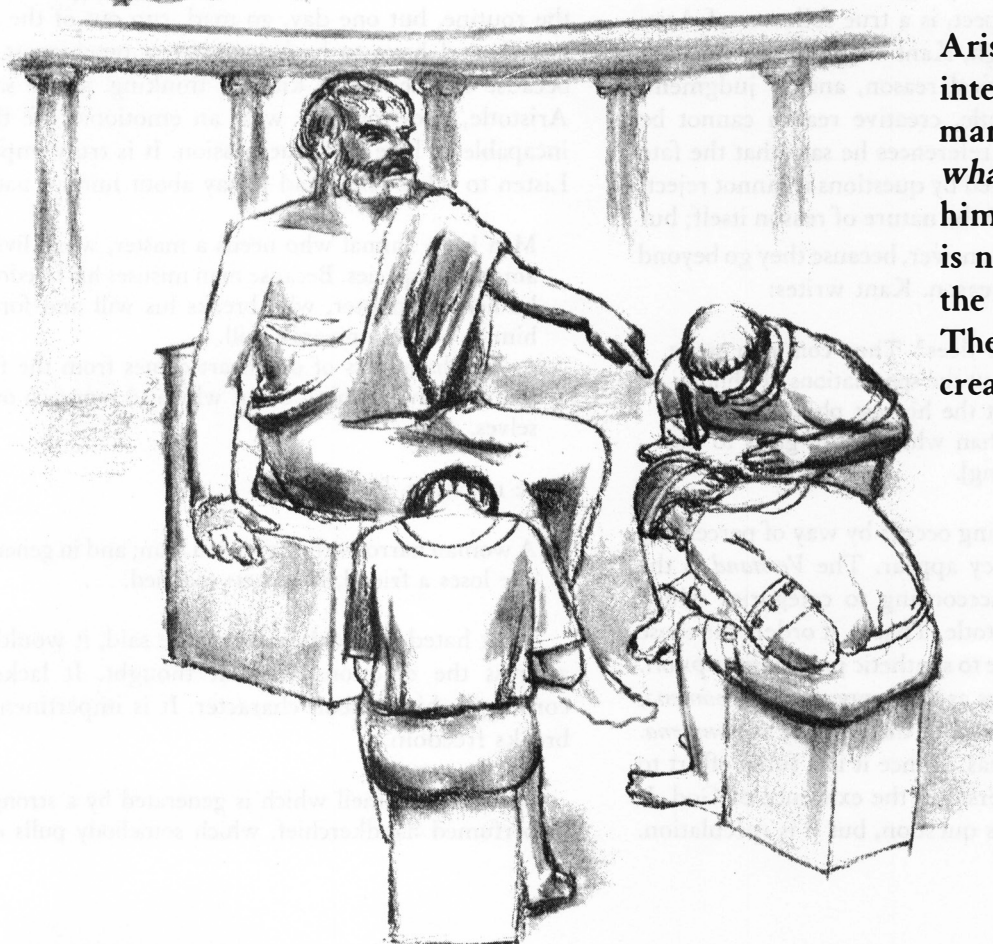
All instruction given or received by way of argument proceeds from *pre-existing knowledge*. . . . The mathematical sciences and all other speculative disciplines are acquired in this way, and so are the two forms of dialectical reasoning, syllogistic and inductive; for each of these latter makes use of old knowledge to impart new. The syllogism, by assuming an audience that accepts its premises; induction, by exhibiting the universal as implicit in the clearly known particular. Again, the persuasion exerted by rhetorical arguments is in principle the same, since they use either example, a kind of induction, or enthymeme, a form of syllogism.

So there is no way of attaining new knowledge, only pre-existing knowledge. Aristotle has no notion of causality. All his questions do is inquire about connection, i.e., how to connect an attribute with a thing. So *causality* is the middle term of a deductive syllogism. Take the example: If A is predicated of all B, and B of all C, it is necessary for A to be predicated of all C, or:

Major premise: All B is A.

Minor premise: All C is B.

Conclusion: All C is A.



Aristotle was not interested in *how* man thinks but only *what* he thinks. For him, the human mind is no different than the animal mind. Therefore, Aristotle created logic!

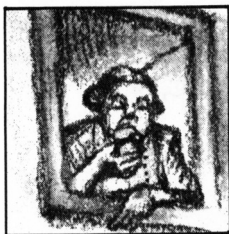
B, the middle term, is the cause that accounts for all C's being A. Real life example:

All Greeks are mortal.
Socrates is Greek.
Socrates is mortal.

Or,

Major premise: All birds fly.
Minor premise: Hawks are birds.
Conclusion: Hawks fly.

What causes the hawks to fly? The middle term. The fact that cows are cows, is because they produce milk. The fact that engines are engines, causes them to run. They all do things because they are classified as belonging to the species and genera to which they belong. That is the depth of Aristotle's logic.



Immanuel Kant, Modern Aristotelian

WITH THE BACKGROUND just outlined, it is not difficult to jump into the eighteenth century and judge the evil Immanuel

Kant, who, in every respect, is a true follower of Aristotle. Interestingly enough, Kant wrote three critiques: of pure reason, of practical reason, and of judgment. For Kant, as for Aristotle, creative reason cannot be explained. In numerous references he says that the fate of reason is to be tormented by questions it cannot reject, because they are given by the nature of reason itself; but which it cannot however answer, because they go beyond the capacity of human reason. Kant writes:

Is that all that reason does? Thus common sense could do as well, without the speculations of philosophy. And we find that the highest philosophy does not find more truth than what nature gives to the *Verstand* [Understanding].

In other words, thinking occurs by way of perception of things in the way they appear. The *Verstand* is the agency which judges, according to categories which Kant borrows from Aristotle. That is, it orders the sense perceptions, so as to come to synthetic judgments *a priori*. We can only know things as they appear, as *phenomena*, not as what they are in and of themselves, as *noumena*. We cannot grasp the ideas. Hence it is a futile effort to ontologically try to understand the existence of God. It may be useful to ask this question, but it is speculation.

Therefore, Kant asserts, Leibniz did not achieve understanding *a priori* of the existence of God, and therefore a lot of work and effort was done by him in vain. Man can become as rich by way of these pure ideas, as a businessman who, in order to better his bank accounts, imagines that by adding a few more zeros, he will have 100,000 dollars rather than 100. He can imagine it, but in practice this means nothing, says Kant in his *Critique of Pure Reason*. So, between the dry *Verstand* and reality, there is an unbridgable gap. Reason can only *regulate*, not *create hypotheses*.

From this it follows that since *being* is not intelligible and knowable, thinking gets into constant paradoxes, antinomies. For example, the questions: Does the universe have a beginning and is it bounded, or does it have no beginning and is it infinite? Is there only substance consisting of parts, or simple substance without parts? Was the universe created by sufficient reason or is it arbitrary, i.e., is there or is there not causality?

These questions Kant could not and did not want to answer, since reason was for him limited. All he did was to make a rigorous setting for man—the *categorical imperative*—which leaves no room for creativity, but can look at actions only from the standpoint of negation, not positive affirmation.

We have many Kantians among us, especially in the German finance ministry. These are the people who love the routine, but one day, go mad, run out of the room naked, and have to be brought to a psychiatrist. It is because the deductive kind of thinking, as we saw in Aristotle, goes together with an emotional life that is incapable of love and true passion. It is truly impotent. Listen to what Kant had to say about human nature:

Man is an animal who needs a master, while living among his species. Because man misuses his freedom, he needs a master, who breaks his will and forces him to obey a universal will. . . .

The happiness of our heart comes from the fact that we have nothing about which to reproach ourselves.

Pure negation. Or:

A woman narrows the heart of a man; and in general, one loses a friend, if he gets married. . . .

Kant hated music, because, as he said, it would only address the emotions without thought. It lacks, according to him, urban character. It is impertinent and breaks freedom:

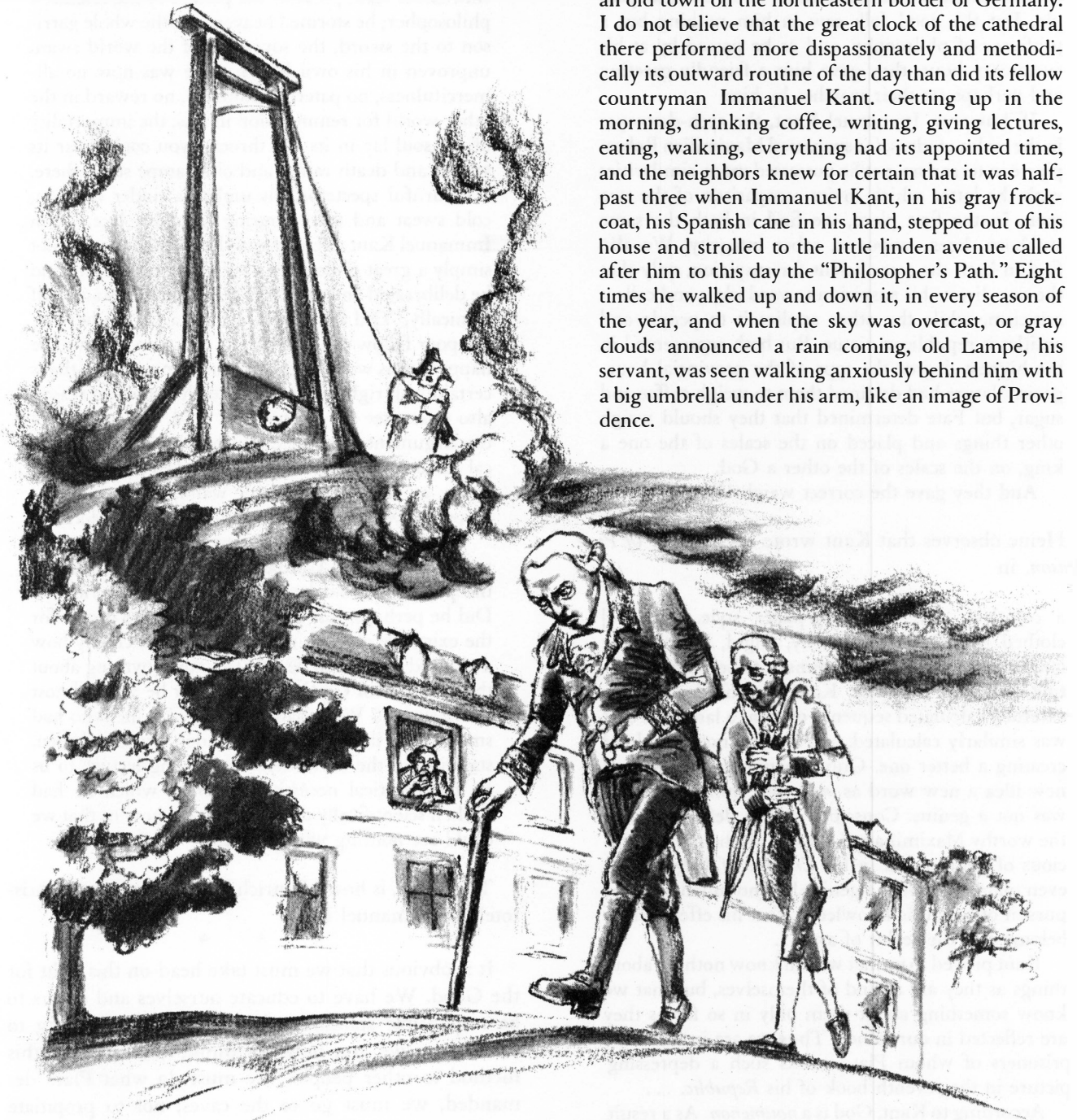
Just like the smell which is generated by a strongly perfumed handkerchief, which somebody pulls out

of his pocket, and which gets on people's nerves, so is music for people who cannot stand it.

Nothing could be more truthful than that about Kant. Now there is one man who had the right psychological insight into this dried-out Aristotelian. In the third book of his work entitled *Concerning the History of Religion*

and *Philosophy in Germany*, Heinrich Heine wrote the following:

The history of Immanuel Kant's life is difficult to portray, for he had neither life nor history. He led a mechanically ordered, almost abstract bachelor existence in a quiet, remote little street in Königsberg, an old town on the northeastern border of Germany. I do not believe that the great clock of the cathedral there performed more dispassionately and methodically its outward routine of the day than did its fellow countryman Immanuel Kant. Getting up in the morning, drinking coffee, writing, giving lectures, eating, walking, everything had its appointed time, and the neighbors knew for certain that it was half-past three when Immanuel Kant, in his gray frock-coat, his Spanish cane in his hand, stepped out of his house and strolled to the little linden avenue called after him to this day the "Philosopher's Path." Eight times he walked up and down it, in every season of the year, and when the sky was overcast, or gray clouds announced a rain coming, old Lampe, his servant, was seen walking anxiously behind him with a big umbrella under his arm, like an image of Providence.



What a strange contrast between Kant's outward life and his destructive, world-crushing thoughts! For this arch-destroyer in the realm of ideas far surpassed Maximilian Robespierre in terrorism.

What a strange contrast between the outward life of the man and his destructive, world-crushing thoughts! Truly, if the citizens of Königsberg had had any premonition of the full significance of his ideas, they would have felt a far more terrifying dread at the presence of this man than at the sight of an executioner, an executioner who merely executes people. But the good folk saw in him nothing but a professor of philosophy, and as he passed by at his customary hour, they gave him a friendly greeting and perhaps set their watches by him.

If, however, Immanuel Kant, the arch-destroyer in the realm of ideas, far surpassed Maximilian Robespierre in terrorism, yet he possessed many similarities with the latter which invite comparison of the two men. In the first place, we find in both the same stubborn, keen, unpoetic, sober integrity. We also find in both the same talent for suspicion, only that the one directs his suspicion toward ideas and calls it criticism, while the other applies it to people and entitles it republican virtue. But both represented in the highest degree the type of the provincial bourgeois. Nature had destined them to weigh coffee and sugar, but Fate determined that they should weigh other things and placed on the scales of the one a king, on the scales of the other a God.

And they gave the correct weight!*

Heine observes that Kant wrote his *Critique of Pure Reason*, in

a colorless, dry, wrapping-paper style. . . . [He] clothed his ideas in a courtly, frigid, bureaucratic language. In this he shows himself to be a true philistine. Possibly, however, Kant also needed for his carefully calculated sequence of ideas a language that was similarly calculated, and he was not capable of creating a better one. Only a genius possesses for a new idea a new word as well. But Immanuel Kant was not a genius. Conscious of this deficiency, like the worthy Maximilian, Kant was all the more suspicious of genius, and in his *Critique of Judgment* he even maintained that a genius had no function in the pursuit of scientific knowledge, that his effectiveness belonged to the realm of art. . . .

Kant proved to us that we can know nothing about things as they are in and of themselves, but that we know something about them only in so far as they are reflected in our minds. Thus we are just like the prisoners of whom Plato paints such a depressing picture in the seventh book of his *Republic*. . . .

According to Kant, God is a *noumenon*. As a result

*Excerpts from *Heinrich Heine, Selected Works*, translated by Helen M. Mustard © 1973 by Random House, Inc. Reprinted by permission of Random House, Inc.

of his argument, this transcendental ideal being which we have hitherto called God is nothing but a fiction. . . .

You think we can go home now? Not on your life! There is another piece still to be performed. After the tragedy comes the farce. Up to this point Immanuel Kant presents the picture of the relentless philosopher; he stormed heaven, put the whole garrison to the sword, the sovereign of the world swam unproven in his own blood, there was now no all-mercifulness, no paternal kindness, no reward in the other world for renunciation in this, the immortality of the soul lay in its last throes—you could hear its groans and death rattle; and old Lampe stood there, a mournful spectator, his umbrella under his arm, cold sweat and tears pouring from his face. Then Immanuel Kant relented and showed that he was not simply a great philosopher but also a good man, and he deliberated and said, half good-naturedly and half ironically, "Old Lampe must have a God, otherwise the poor fellow can't be happy. But man ought to be happy in this world—practical reason says so—that's certainly all right with me—then let practical reason also guarantee the existence of God." As a result of this argument Kant distinguished between theoretical reason and practical reason, and by means of the latter, as with a magician's wand, he revived the corpse of Deism, which theoretical reason had killed.

But did Kant perhaps undertake this resurrection, not simply for old Lampe's sake, but also because of the police? Or did he really act out of conviction? Did he perhaps, just by destroying all the proofs for the existence of God, intend to show us clearly how awkward it is not to be able to know anything about the existence of God? In this matter he acted almost as wisely as a Westphalian friend of mine who had smashed all the lamps in Grohnder Street and then, standing in the dark, delivered a long lecture to us on the practical necessity of lamps, which he had broken scientifically only in order to show us that we could see nothing without them.

This, then, is how Heinrich Heine portrays the Aristotelian, Immanuel Kant.

* * *

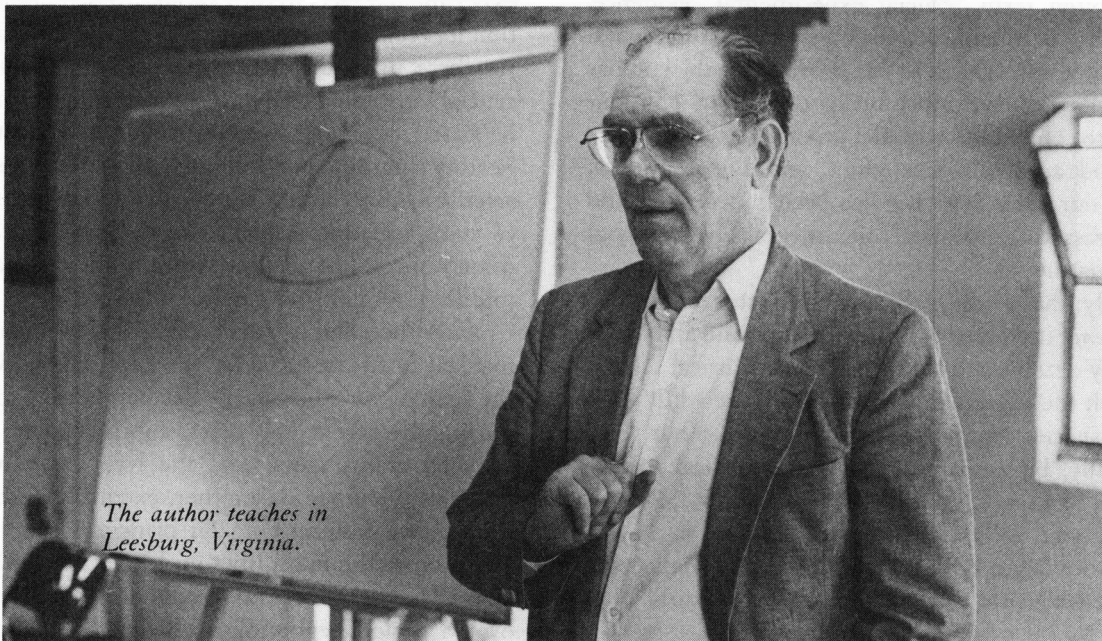
It is obvious that we must take head-on this fight for the Good. We have to educate ourselves and others to be responsible statesmen, but that means learning to know who we are, how we think, and teaching this method to other people. We must do what Plato demanded, we must go to the caves, not to propitiate peoples' opinions, but to free them from the enslavement of stupidity. Doing that, as we know from our own work in the LaRouche movement—looking for the truth—is a life and death question.

THE SCIENCE OF MUSIC



Solution to Plato's Paradox of 'The One and the Many'

by Lyndon H. LaRouche, Jr.



*The author teaches in
Leesburg, Virginia.*

EIRNS/Stuart Lewis

One of the more striking examples of the lunacy to which a modern positivist's academic mentality may lead sometimes, is the occasional episode, during which a university instructor informs his class that science has been unable to show that life

This article appears as the Foreword to the Institute's "Manual on the Rudiments of Tuning and Registration."

(such as that of university instructors) is possible. Lately, since the wider, post-World War II popularization of the Boltzmann dogma, as "information theory," the positivist professor might concede that although the existence of life is contrary to the Second Law of Thermodynamics, it is a remote, chance, statistical possibility.

In that way, we forewarn our readers against such a positivist's misinterpretation of some following observa-

tions on the subject of electromagnetic determinism, respecting the characteristic metrical features of musical science. Man, and life in general, existed long before positivists first appeared on this planet. Such fundamentally characteristic features of *natural music* as *bel canto* vocalization, voice-registration, and a well-tempered scale with middle C set at approximately 256 cycles, are biologically determined, and thus inherent truths of existence predating the first physicist or musicologist. The fact that something exists, is, statistically, necessary and sufficient proof of better than 100% certainty that the laws of the universe have brought about that existence in a necessary and sufficient way. The necessity of *well-tempering*, of *bel canto*, and of middle C set approximately at 256 cycles, was, in each respective instance, discovered centuries, or even, perhaps, millennia ago. These characteristic features of the “musical universe” are, like the existence of mankind, natural phenomena, not something whose existence requires academic midwifery.

The included task of science, is the search for truth, to bring the method by which human opinion is formed into conformity with the Creator’s laws. In that connection, we, as discoverers, depend upon what physical scientists often term “crucial experimental” evidence. The existence of mankind is such a crucial-experimental fact. It is not something to be proven possible; it has occurred. Rather, we must bring prevailing opinion-making into conformity with the proof, that the existence of mankind as a self-developing, and the dominant, species of our solar system—has been a necessary and sufficient result of the most fundamental lawfulness of universal nature.

Similarly, the crucial-experimental facts from which *musical science* is obliged to begin, are each and all facts of biologically determined *vocal polyphony*. Musical science begins with the subject of singing. Since the adult singing-voice species (soprano, mezzosoprano, tenor, etc.) are naturally, biologically determined, musical science starts here, focused upon what is demonstrated, by crucial experiment, to be *well-tempered polyphony*.

We cannot begin with the phenomena of man-made musical instruments, since these are not natural phenomena.

The proofs of the natural principles of *bel canto vocalization* and *voice-registration*, are directly crucial-experimental reflections of the *biology* of the human species. *Bel canto* is demonstrated to be nothing but the human being’s most natural, relatively least-effort, most efficient method of speaking and singing, by virtue of the biologically determined characteristics of the healthy expression of the human genotype. This was proven experimentally by musicians no later than a half-millennium ago, and

almost certainly much earlier than that.

The vocalization of Classical (e.g., strophic) poetry, according to elementary *bel canto* principles of vocalization, is *song*. The participation of singers representing two or more of the biologically determined species of singing voices (soprano, tenor, etc.), is the essence of *Classical well-tempered polyphony*.

It is determined, in a similar way, that each species of singing voice has, naturally, four *potential* registers, each with a distinct quality (“color”) of voice relative to each and all of the remaining three. It is also determined, that for each such species of singing voice, the places (on the scale) at which the transition from one register to an adjacent one must occur, is biologically determined, and that this place of “register shift” is fixed such that the place itself may not be shifted frequently without possibly irreversible damage to the singer’s voice (see Figure 1).

Similarly, the extreme ranges of the voice, for each species, have certain approximate upper and lower limits, for most of the trained voices in the singing population; by exception, some trained adult singers may command extended ranges. Once we apply these natural, crucial-experimental facts to the canonical-polyphonic vocalization (*bel canto*) of any singable piece of Classical poetry, we force upon the whole body of musical science the crucial-experimental proof, that the musical scale must be based upon the *natural bel canto* characteristics of healthy singing, upon Johann Sebastian Bach’s *well-tempered polyphony*, upon the *naturally* fixed characteristics of voice registration respecting each biologically determined species of singing voice, and upon a value of middle C of approximately 256 cycles.

After that, and no earlier, we consider the man-made musical instruments. As a practical matter, we delimit the span of *our* study to the development of instruments during the recent 500 years, approximately. Although stringed instruments (e.g., the lyre), woodwinds, and horns of one form or another, extend into very ancient history, we lose nothing on principle, if we limit our attention to the main lines of development of keyboard and Classical orchestral chests of instrumental voices over a period beginning with the adulthood of Leonardo da Vinci, and concluding, approximately, at the beginning of the 1814-15 Congress of Vienna. That “chest” of keyboard and orchestral instruments, which emerged as a standard over the period from J.S. Bach’s work at Leipzig up until the Congress of Vienna, is taken as our standard of reference for defining matters posed in respect to the strictly Classical anti-Romantic tradition associated factionally with such names as J.S. Bach, Haydn, Mozart, Beethoven, Schubert, Chopin,

and Brahms (see Figure 2).

These instruments, designed for a well-tempered scale pivoted upon C=256, were developed in imitation of those characteristics of the chest of *bel canto* voice-species which we have identified above. Thus, to the degree both composer and performer grasp, more or less successfully, the practical implications of these connections, everything (bearing on principles) which is to be said of the intent and characteristics of instrumental performance, is subsumed by *natural* voice principles.

Kepler and Music

Through the eyes of the mathematical physicist, what we have noted, as the *natural* characteristics of “musical space-time,” presents us an extremely significant challenge. In brief, the laws of a universe in which these *natural characteristics* might exist could not be the universe of Descartes, Newton, Kelvin, Helmholtz, Maxwell, or Boltzmann-Wiener. However, it could be a different kind of physical universe, that of Cardinal Nicolaus of Cusa, Cusa’s follower Leonardo da Vinci, Cusa and Leonardo’s professed follower Johannes Kepler, Kepler’s professed follower Gottfried Leibniz, France’s Gaspard Monge, or such followers of Leibniz and Carl Gauss as Bernhard Riemann, Georg Cantor,

and Eugenio Beltrami. The case of Kepler’s founding of the first comprehensive mathematical physics, is a very relevant illustration of the point.¹

Take Kepler’s *World Harmony*² as a point of reference. First, for the information of the person who has Alexander Pope’s “a little learning” concerning physical-science matters, we emphasize that Isaac Newton did not “discover universal gravitation.” Newton’s famous Gm_1m_2/r^2 is merely an algebraic manipulation of the algebraic formulas representing Kepler’s famous, universal three laws of motion.³ Newton discovered nothing; rather, by the algebraic oversimplification in Newton’s parody of Kepler’s laws of motion, Newton introduces an apparently insoluble mathematical paradox into physics, the so-called “three-body problem.”

In Newton’s schema, for example, the orbits of the planets and their moons can be situated at any distance from the Sun one might choose for situating a planet. One merely has to choose a mass and orbital velocity whose associated centrifugal force neatly balances the centripetal force, the gravitational “pull.”

In Kepler’s universe, this is not permitted. The number of possible orbits and orbital velocities is precisely determined. No orbits between any two of these determined orbits is permitted. Kepler’s method permits the existence of no planetary orbit between those of Mercury

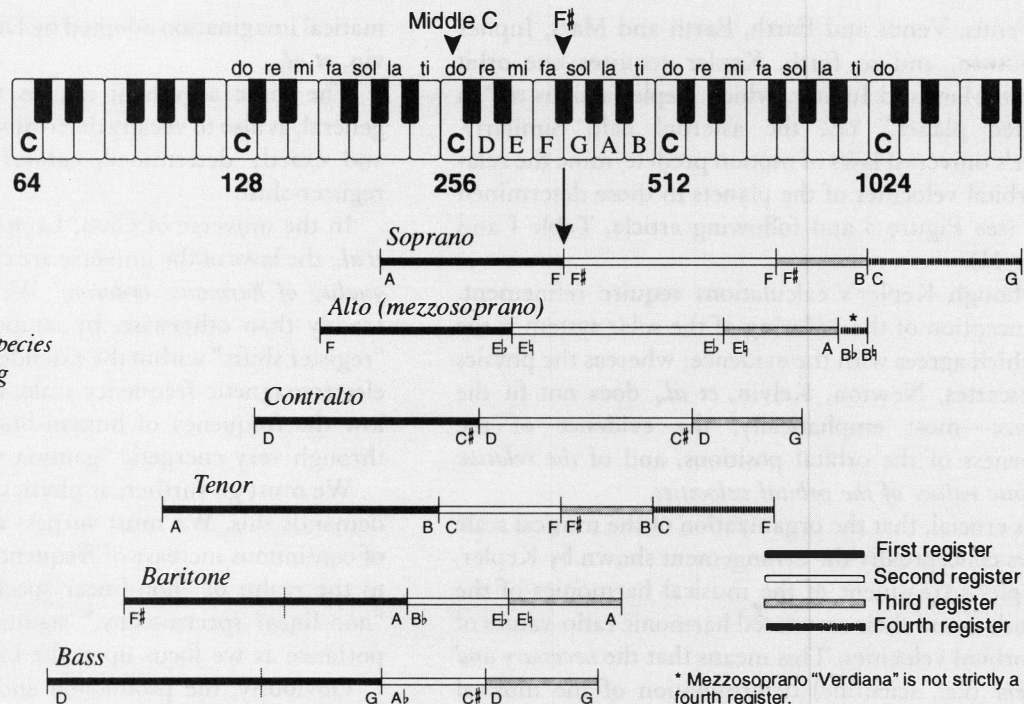
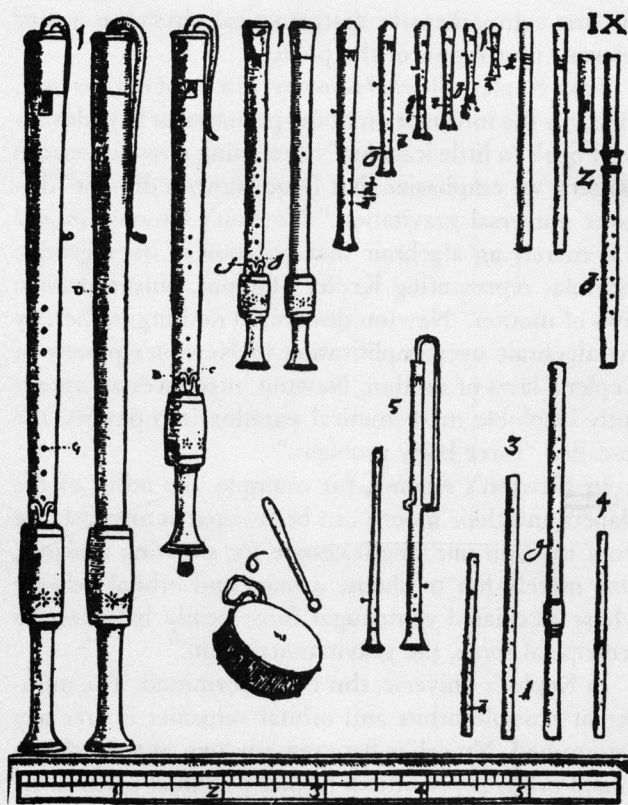
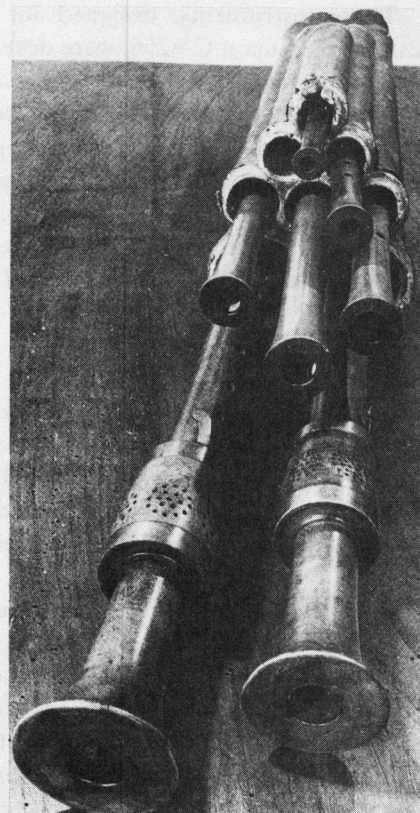


FIGURE 1. The six species of the human singing voice.



Source: Michael Praetorius, *Syntagma Musicum*, 1619

FIGURE 2.
Instrumental voices
were developed, from
the period of
Leonardo da Vinci
to the Congress of
Vienna, in imitation
of the species of the
human singing voice.
Left: woodcut
diagram of "chest"
of recorder voices.
Right: "chest" of
recorders in case.



and Venus, Venus and Earth, Earth and Mars, Jupiter and Saturn, and so forth. Kepler requires one orbit between Mars and Jupiter, which Kepler assigns to "an exploded planet," i.e., the asteroid belt. Similarly, Kepler's universal laws of motion predetermine the relative orbital velocities of the planets in those determined orbits (see Figure 3 and following article, Table I and Figure 11).

Although Kepler's calculations require refinement, his conception of the ordering of the solar system is the one which agrees with the evidence; whereas the physics of Descartes, Newton, Kelvin, *et al.*, does not fit the evidence—most emphatically, the evidence of the uniqueness of the orbital positions, and of *the relative harmonic values of the orbital velocities*.

It is crucial, that the organization of the musical scale follows conceptually the arrangement shown by Kepler, in Kepler's treatment of the musical harmonies of the solar orbits and their associated harmonic ratio-values of their orbital velocities. This means that the *necessary and sufficient* (i.e., scientific) determination of the musical scale, is consistent with the physical universe of Cusa, Kepler, Leibniz, *et al.*, but not with the schema of mathe-

matical imagination adopted by Descartes, Newton, Kelvin, *et al.*

The same argument applies to *vocal polyphony* in general, as also to vocally determined, *natural registration*, and exactly determined, *natural* singing-voice-species register-shift.

In the universe of Cusa, Leonardo, Kepler, Leibniz, *et al.*, the laws of the universe are coherent with a *musical quality of harmonic ordering*. We can show this more readily than otherwise, by studies of the existence of "register shifts" within the extended span of the complete electromagnetic-frequency scale, for a scale starting below the frequency of human-brain "alpha waves," up through very energetic "gamma waves."⁴

We must go further, as physics, including biophysics, demands this. We must surpass a simply linear notion of continuous increase of frequency (from "2" onwards), to the realm of "non-linear spectroscopy." This latter, "non-linear spectroscopy," assumes overwhelming importance as we focus upon the biophysical domain.

Obviously, the production and hearing of music by the human species involves living biophysical processes in what proves to be the "non-linear spectroscopic" do-

main of generating and absorbing, discriminating efficiently musical tone-sequences. Thus, we locate the *bio-physics* to be considered respecting a *science of music*.

Since the three cited, principal, natural features of vocal polyphony—*well-tempered scale*, *registration of singing-voice species*, and determined *register shift*—require a Keplerian universe, excluding the Newtonian, the kind of physics to which a science of music must refer, must be along the Keplerian track leading through Leibniz and Riemann.

Kepler and Life

Another way of presenting what is ultimately the same point just made, is to say that Kepler's mathematical physics was based explicitly, "axiomatically," upon the evidence, that our universe is characterized as one in which life is the highest form of existence, and man is *lawfully* the highest form of life known.

To attempt to quell riotous protests of indignation from among some holders of doctoral degrees in physical science, we must interpolate here an identification of the following unpleasant truth respecting modern university (and secondary school) education. Only after we have cleared the air so, can Kepler be discussed rationally.

The twentieth-century trend in U.S. education has been away from the rigorous standards of classical and scientific education preferred by nineteenth-century Harvard University, for example, toward a rote education of the poor quality which German speakers associate with the conventional word of contempt, *Brotgelehrten*. More and more, scientific education has aimed pragmatically, away from rigorous attention to scientific fundamentals, toward, and below the editorial standard of, say, *Popular Science* magazine.

In brief, even most contemporary university products with four-plus averages and terminal degrees, are primitively uneducated in a field which happens to be this writer's specialty: *a Socratic method of approach to axiomatics*. This latter method is the most characteristic feature of the leading work contributed by the greatest scientific minds of the past six hundred years, such as Cusa, Leonardo, Kepler, Leibniz, *et al.*

What the *Brotgelehrten* among science students and graduates know, is virtually no geometry, but merely a variety of arithmetic-algebra based upon, and limited to, a formalist deductive method. Such is the passively accepted classroom mathematics, at all levels of the pecking-order, today. What only a handful of such professionals do know, is that the scientific competence of a deductive mathematics is very much in doubt experimentally. The popular defense of the *Brotgelehrten*, is to

put out of sight and mind any physical evidence, no matter how devastatingly true, which calls the "generally accepted," deductive form of mathematics into question.

The evidence which proves Kepler's mathematical physics competent and Newton's opposing mathematics as crucially incompetent by comparison, is the kind of crucial evidence showing the outer limits of physical application of a merely deductive mathematical schema.

That brings us to our concluding points on the science of music. There are three points to be made.

Despite the progress in interpretative performance of Classical musical works by some postwar-period musicians, the principles of Classical musical composition themselves have been virtually lost. The chief obvious reason for this general decay of musical education's quality is the attempt of established musicologists to superimpose the Hegelian metaphysical schema, in which the Romantic school is portrayed as the logical successor of the Classical, and the twelve-tone modernist rubbish the logical successor of the Romantic. The effort to adduce for the teaching of music, a "principle" which coheres with such Hegelian mystical irrationalism, is the core of the musical-theoretical problem of today.

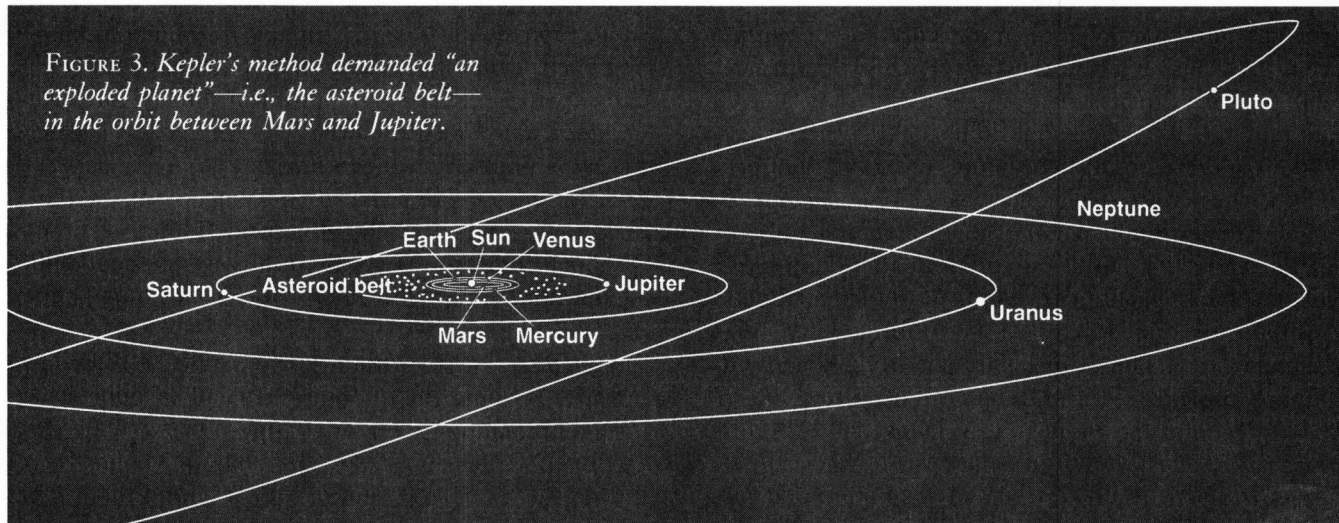
Continuing with the first of our three points here, there is a second aspect of the same problem to be noted. The popularization of anti-scientific rubbish of Helmholtz's *Sensations of Tone*, and the popularized hoaxes of Helmholtz's devotee Ellis, if believed, destroy utterly the ability of the music student to understand rationally the three *natural characteristics of music* we have identified above.

Summing up the first of our three concluding points, the nineteenth-century rise of the quasi-dionysiac dogma of Romanticism, decreed through the mouth of proto-fascist positivist Professor Friedrich Karl von Savigny, that an absolute separatism must be enforced, between natural sciences (*Naturwissenschaft*) and the arts (*Geisteswissenschaft*). Thus, did establishment support for Savigny's doctrine of separatism lead both to the rise of Adolf Hitler and to the triumph of the irrationalist sundry dogmas of "art for art's sake," in music, poetry, and so forth.

Hence, the proper unification of science and art, as embodying, as an integral wholeness, these pervasively coherent qualities of individual mind setting man apart from, and superior to, the beasts, is indispensable for the vigorous revival of music in our time. To this purpose, the current of scientific view of music exemplified by Kepler and his successors, is indispensable.

The second of our three concluding points coheres with the first. Although musical history has proven conclusively, empirically, the three cited *natural characteris-*

FIGURE 3. Kepler's method demanded "an exploded planet"—i.e., the asteroid belt—in the orbit between Mars and Jupiter.



tics of vocal polyphony, questions of practical significance arise which music demands be examined from the standpoint of biophysics. We shall turn to that after identifying the third of our three concluding points.

Our third, cohering point is this. It is not sufficient, that musicological questions be settled from the vantage point of biophysics' nonlinear spectroscopy, or from what might be termed a "simply musical" standpoint. The irrationalist myths of "absolute music" must not be left unchallenged. The human function of music, must be ultimately the basis on which musical activity is to be judged.

We subsume the three topics, as ultimately one, under the rubric *Kepler and Life*.

Sovereignty of the Creative Processes of the Individual Human Mind

Every genuinely new conception, as knowledge, which you, or any other person acquires, comes into existence in the individual human mind, in a way which can in no way be described by deductive methods, but rather in an entirely different way, in a way which solves the central paradox of Plato's *Parmenides* dialogue. This is the true key to understanding, first, the human purpose of Classical forms of music: This understanding shows us how the *biophysics of vocal polyphony* play their part in defining how such should be performed and composed.

The generation of a new idea, as a unified, *indivisible* conception, in the mind of an individual person, presents this following echo of the *Parmenides* paradox.

Many pieces, each individual, indivisible ideas, enter the mind, and are transformed from a *many* into a new, valid, combined but single and non-divisible new conception. There is nothing of the new idea in any part

of those many ideas which appear to have stimulated its generation. They are the *Many*; the new conception is *the indivisible One*. There is no deductive pathway leading from any or all of the *Many*, to this *One*. The transformation of the *Many* into this new *One*, is the work of *the creative processes of the individual human mind*.

By *creative processes*, we mean the same kind of mental processes which generate, transmit, and assimilate new, valid discoveries of fundamental principle in physical science. This occurs as a *Many-into-One* transformation, typifying so the required solution to the *Parmenides* paradox. Since this process is unique and indivisible, every individual mind engaged in generating concepts which are valid, and new to it, to this effect, is an *axiomatically sovereign quality of individuality*.

The case of physical science, the uplifting of man's existence through scientific and technological progress, shows that the self-development of individual mental creative processes, to produce valid changes for the better in man's comprehension of universal physical laws, puts such individual mental-creative processes in a special kind of direct, correspondence with the Will of the Creator.

Thus, in valid scientific progress, the primary relationship to knowledge of the individual's creative-mental processes, is to the *Mind (Will) of the Creator*, and only by derivation to objects in the universe.

Classical music, is the use of the natural characteristics of vocal polyphony, to replicate in music what the developed creative-mental powers of the individual human mind accomplishes otherwise in the "synthesis" of a valid discovery of improved, fundamental scientific principle.

This signifies, that the process of generating a *Many* (a mathematical-physics *manifold*) from a starting-point,

and then developing the manifold to generate a *One*, establishes a single conception—the *One*—as the identity of the composition, rather than as a divisible aggregation of parts. This requires what may be described fairly as a “problem-solving” dynamic to the process of composition; this implies, in turn, that the *problem* and its *solution* are defined as *problem* and *solution*, respectively, by some notion of lawfulness.

Hence, the *arbitrariness, irrationality* intrinsic to the principle of artistic Romanticism, shows Romanticism to be on principle a *dionysiac* defiance against reason, and the twelve-tone system more radically so.

Notably, *the principle of musical composition cannot be deductive* (e.g., *Aristotelian, neo-Aristotelian*) in form.⁵ It cannot fit within a “universe” (a mathematical physics) according to Descartes, Newton, Kelvin, *et al.* This brings us to relevant work by Leonardo da Vinci and Kepler, successively.

The central feature of the work of Kepler was his elaboration of a principle central to the scientific accomplishments of Leonardo da Vinci. Leonardo *et al.* had shown that all living processes were characterized as to form, and form of functional motion, by harmonic orderings congruent with the Golden Section. This work of Leonardo *et al.*, had the following significances for the later work of Kepler, and for our topic here today.

First, as to constructive geometry (e.g., mathematics). The Golden Section is the characteristic feature of generation (*determination*) of those five “Platonic” regular solids (polyhedra) which are the limit of such constructability within visible physical space-time (see following article, Figures 2 and 4).

Second, as the convergence of Fibonacci’s series upon Golden Section harmonics illustrates, these latter harmonic orderings are not only characteristic of all living processes, but express a characteristic of negentropic processes.

Third, Kepler’s choice of this geometrical mathematics for his construction of an astrophysics (and of universal laws of motion) defines his universe (as an integral whole) as negentropic (e.g., directly opposite to the universe of Newton, Kelvin, *et al.*). Subsequent evidence (e.g., Gauss’ work on asteroid orbits) proved Kepler to have been right in his choice of a universal *negentropic* principle, and Newton’s physics, based mathematically and ontologically upon axiomatically entropic assumptions, to have been flatly in error.

Modern crucial-experimental evidence shows: 1) that all living processes are harmoniously ordered negentropically as indicated above; 2) that Kepler’s negentropically ordered physical space-time was proven as to astrophysics by Gauss’ work on asteroid orbits; and 3) that in the

very small, the quantum-domain of Schrödinger and de Broglie functions, physical space-time is negentropically “Keplerian.”

For reasons supplied in such published locations as *In Defense of Common Sense*, creative-mental processes are implicitly *nonlinear negentropic* processes. Consider the argument for each, summarized very briefly.

Any consistent system of deductive argument, such as present-day conventional classroom mathematics, can be represented as an extensible form of deductive theorem-lattices. Such a lattice is generated from the starting-point of a set of unproven, arbitrary theorems, called *axioms* and postulates. All theorems are derived from that starting basis; no consistent theorem so derived contains any claim not originally implied by the original set of axioms and postulates.

A creative discovery in physical science is of the following type (at least, this is so, as long as we examine the matter from the standpoint of deductive method in general):

First, represent an existing physics (for example) by a choice of deductive mathematics, thus depicting that physics, in more or less close approximation, as a deductive theorem-lattice. Now, consider a single crucial experiment whose evidence refutes a consistent and necessary theorem of that theorem-lattice. All other practical considerations assumed taken into account, this single experiment demands a revolutionary overturn of that entire physics.

A fallacy in a single, consistent, and necessary theorem of a deductive system refutes fatally one or more features of the set of axioms and postulates underlying the entire lattice. The required correction of that proven margin of error in the deductive-axiomatic basis, requires a new axiomatic basis, to such effect that no theorem of the old theorem-lattice, e.g., *A*, is consistent with any theorem of the revised theorem-lattice *B*, and *vice versa*.

Thus, from the standpoint of deductive, or linear method (all deductive systems are linear, and *vice versa*), the two successive theorem-lattices are absolutely separated by a deductively unbridgeable logical gulf of *formal (logical) inconsistency*. Another name for this is *mathematical discontinuity*.

Nonetheless, the creative processes of the individual mind, in effecting the leap from *A* to *B*, bridge the discontinuity. Thus, we have as a representation of a creative-mental action (informing practice), a function linking successive theorem-lattices *A, B, C, D, . . .*, which is a function of successive, *nonlinear* discontinuities in one and all possible deductive domains. That is a true *nonlinear* function, of a higher Cantorian order. Thus, we have emphasized *non-linear*.

The fact that the error-correcting aspect inherent in scientific progress directs revolutionary scientific practice (*progress*) of a society toward ever-higher per capita and per hectare reproductive processes, defines this creative function as a *negentropic* function, in the same sense, respecting our illustration, a Fibonacci series converges upon a harmonic ordering congruent with the Golden Section.

This is not merely the case for such creative thinking in physical science, it is the characteristic feature of creative activity in the medium of classical art.

We can illustrate this principle in Classical musical composition in many ways. We can consider, for example, the famous Goethe's misguided preferences for Reichardt, over settings of the same poems by Ludwig van Beethoven and Franz Schubert. Goethe failed to grasp the essential principle of musical creativity, even in so elementary a medium as the simple strophic song.

One of the most obvious illustrations of the point, is the treatment of J.S. Bach's *A Musical Offering* by Wolfgang Mozart, Beethoven, Schubert, and others. Here is an excellent showing of what ought to be understood as the seamless union of scientific methods of musical composition and beauty. A proposition is presented, yet once again, for a yet-more-ingenuous solution. The solution is bounded by strict Classical rigor; the rigor pertains to the way in which a creative modification of the rules is permitted, on behalf of a solution.

There are three most essential things which a Classical musical composition must satisfy.

1) The medium must never depart from the domain of *natural beauty*. Beauty is life; ugliness is death. Life is rooted in those negentropic harmonic orderings which are congruent with the Golden Section. This has not changed since Plato.

2) Nothing can be art which is merely arbitrary whim, or which departs from the strict confines of natural beauty. Yet, the mere imitation of natural beauty is not art. Art is that which employs, and never departs from, the medium of natural beauty, but which uses that uncorrupted medium as the domain of the same kind of strictly rigorous and valid creative-mental activity, applied to the medium of (in this case) vocal polyphony, which we associate otherwise with valid fundamental discoveries of principle in physical science.

3) The work of art, after meeting in a general way these first two requirements, must also master the challenge outlined in Plato's *Parmenides* dialogue: The *Many* in the composition must be transformed into the continuous substance of the indivisible *One*.

Hark back to Nicolaus of Cusa's work: the *microcosm* (Minimum) and the *macrocosm* (Maximum). We,

through efficient development of that *divine spark* which is our individual potential for creative-mental acts, show ourselves, in working for the *isochronically* universal good, to be truly in the living image of our Creator. We participate so, in that which is greater than we are.

It is this quality of doing which marks us out, more than in any other way, as truly, perfectly sovereign individual reflections of our perfectly sovereign Creator. A true work of art brings *Many* into the perfect indivisibility of a *sovereign Oneness*, which latter is the indivisible Oneness of that work of art taken as a whole. Such a work of art thus reflects upon the direct form of relationship between the sovereign individuality of the creative intellect and that in whose likeness that sovereignty is cast. Unless a work of art achieves that specific sort of *sovereignty* itself, and the other conditions also fulfilled, it is no true work of Classical art.

The last quartets of Beethoven, beginning with the Opus 127, epitomize the opening into a new dimension of Classical musical composition. Since then, the Opus 135, the best Classical composers through Brahms, enriched the use of Beethoven's heritage; but they budged music as a whole not an inch further ahead, to this day.

Once, by the aid of insights contributed to young musical masters by a science of music, there will be a more adequate assimilation of what the late quartets represent; once the first truly *sovereign* musical composition reflecting the principle of those quartets has been heard, we shall know by that sign that the lesson has been mastered, and then music shall, at last, move ahead once more.

NOTES

1. See Carol White, "Johannes Kepler: Voyager in Space," *21st Century Science & Technology*, Vol. 1, No. 1, March-April 1988; Lyndon H. LaRouche, Jr., "Designing Cities in the Age of Mars Colonization," *21st Century Science & Technology*, Vol. 1, No. 5-6, November-December 1988; and *LaRouche: Will This Man Become President?* by the Editors of *Executive Intelligence Review* (New York: Executive Intelligence Review, 1983), pp. 161ff.
2. Johannes Kepler, *Harmonici Mundi (The Harmonies of the Spheres)* (1619); see also *Mysterium Cosmographicum (The Secret of the Universe)* (1596), *Commentaries on Mars* (1609), *On the Six-Cornered Snowflake* (1619), and *Epitome of Astronomy* (1620).
3. Kepler's laws can be summarily stated as follows: 1) The planets move around the sun in ellipses, at one focus of which the sun is situated. 2) As each planet moves around the sun, the vector extending from the planet to the sun sweeps out equal areas in equal times. 3) The ratio of the square of the planet's year to the cube of the planet's mean distance from the sun is the same for all planets.
4. For a full development of this material, see Warren J. Hamerman, "The Musicality of Living Processes," *21st Century Science & Technology*, Vol. 2, No. 2, March-April 1989.
5. Lyndon H. LaRouche, Jr., *In Defense of Common Sense and Project A*, in *The Science of Christian Economy and Other Prison Writings* (Washington, D.C.: Schiller Institute, 1992).

THE SCIENCE OF MUSIC



The Foundations of Scientific Musical Tuning

by Jonathan Tennenbaum

I want to demonstrate why, from a scientific standpoint, no musical tuning is acceptable which is not based on a pitch value for middle C of 256Hz (cycles per second), corresponding to A no higher than 432Hz. In view of present scientific knowledge, all other tunings including A=440 must be rejected as invalid and arbitrary.

Those in favor of constantly raising the pitch typically argue, "What difference does it make what basic pitch we choose, as long as the other notes are properly tuned *relative* to that pitch? After all, musical tones are just frequencies, they are all essentially alike. So, why choose one pitch rather than another?" To these people, musical tones are like paper money, whose value can be inflated or deflated at the whim of whoever happens to be in power.

This liberal philosophy of "free-floating pitch" owes its present power and influence in large part to the acoustical theories of Hermann Helmholtz, the nine-

This article is based on a speech given by the author, Director of the European Fusion Energy Foundation, at an April 1988 Schiller Institute conference on scientific tuning held in Milan, Italy. It appears also in the Institute's "Manual on the Rudiments of Tuning and Registration."

teenth-century physicist and physiologist whose 1863 book, *Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik* (*The Theory of the Sensations of Tone as a Foundation of Music Theory*) became the standard reference work on the scientific bases of music, and remains so up to this very day. Unfortunately, every essential assertion in Helmholtz's book has been proven to be false.

Helmholtz's basic fallacy—still taught in most music conservatories and universities today—was to claim that the scientific basis of music is to be found in the properties of vibrating, inert bodies, such as strings, tuning forks, pipes, and membranes. Helmholtz defined musical tones merely as periodic vibrations of the air. The fundamental musical tones, he claimed, are sine waves of various frequencies. Every other tone is merely a superposition of added-up sine waves, called "overtones" or "harmonics." The consonant musical intervals are determined by properties of the "overtone series" to be simple whole-number ratios of frequencies. Arguing from this standpoint, Helmholtz demanded that musicians give up well-tempering and return to a "natural tuning" of whole-number ratios; he even attacked the music of J.S. Bach and Beethoven for being "unnatural" on account of their frequent modulations.

Helmholtz based his theory of human hearing on the same fallacious assumptions. He claimed that the ear works as a passive resonator, analyzing each tone into its overtones by means of a system of tiny resonant bodies. Moreover, he insisted that the musical tonalities are all essentially identical, and that it makes no difference what fundamental pitch is chosen, except as an arbitrary convention or habit.

Helmholtz's Theory: Linear and Wrong

Helmholtz's entire theory amounts to what we today call in physics a "scalar," "linear," or at best, "quasi-linear" theory. Thus, Helmholtz assumed that all physical magnitudes, including musical tones, can at least implicitly be measured and represented in the same way as lengths along a straight line. But, we *know* that every important aspect of music, of the human voice, the human mind, and our universe as a whole, is characteristically *nonlinear*. Every physical or aesthetic theory based on the assumption of only linear or scalar magnitudes, is bound to be false.

A simple illustration should help clarify this point. Compare the measurement of lengths on a straight line with that of arcs on the circumference of a circle. A straight line has no intrinsic measure; before we can measure length, we must first choose some unit, some interval with which to compare any given segment. The choice of the unit of measurement, however, is purely arbitrary.

The circle, on the contrary, possesses by its very nature an intrinsic, *absolute* measure, namely one complete cycle of rotation. Each arc has an absolute value as an *angle*, and the regular self-divisions of the circle define certain specific angles and arcs in a lawful fashion (e.g., a right angle, or the 120° angle subtended by the side of an equilateral triangle inscribed in the circle).

Just as the process of rotation, which creates the circle, imposes an absolute metric upon the circle, so also the process of creation of our universe determines an absolute value for every existence in the universe, including musical tones. Helmholtz refused to recognize the fact that our universe possesses a special kind of curvature, such that all magnitudes have absolute, geometrically-determined values. This is why Helmholtz's theories are systematically wrong, not merely wrong by accident or through isolated errors. Straight-line measures are intrinsically fallacious in our universe.

For example, sound is not a vibration of the air. A sound wave, we know today, is an electromagnetic process involving the rapid assembly and disassembly of

geometrical configurations of molecules. In modern physics, this kind of self-organizing process is known as a "soliton." Although much more detailed experimental work needs to be done, we know in principle that different frequencies of coherent solitons correspond to distinct geometries on the microscopic or quantum level of organization of the process. This was already indicated by the work of Helmholtz's contemporary, Bernhard Riemann, who refuted most of the acoustic doctrines of Helmholtz in his 1859 paper on acoustical shock waves.¹

Helmholtz's theory of hearing also turned out to be fallacious. The tiny resonators he postulated do not exist. The human ear is intrinsically nonlinear in its function, generating singularities at specific angles on the spiral chamber, corresponding to the perceived tone. This is an active process, akin to laser amplification, not just passive resonance. In fact, we know that the ear itself *generates* tones.

Moreover, as every competent musician knows, the simple sinusoidal signals produced by electronic circuits (such as the Hammond electronic organ) *do not* constitute musical tones. Prior to Helmholtz, it was generally understood that the *human singing voice*, and more specifically, the properly trained *bel canto* voice, is the standard of all musical tone. Historically, all musical instruments were designed and developed to imitate the human voice as closely as possible in its nonlinear characteristics.

The *bel canto* human voice is for sound what a laser is for light: The voice is an *acoustical laser*, generating the maximum density of electromagnetic singularities per unit action. It is this property which gives the *bel canto* voice its special penetrating characteristic, but also determines it as uniquely beautiful and uniquely musical. By contrast, electronic instruments typically produce Helmholtzian sine-wave tones, which are ugly, "dead," and unmusical exactly to the extent that they are incoherent and inefficient as electromagnetic processes.

Tuning Is Based on the Voice

The human voice defines the basis for musical tuning and, indeed, for all music. This was clearly understood long before Helmholtz, by the scientific current associated with Plato and St. Augustine, and including Nicolaus of Cusa, Leonardo da Vinci and his teacher Luca Pacioli, and Johannes Kepler. In fact, Helmholtz's book was a direct attack on the method of Leonardo da Vinci.

If Helmholtz's theories are wrong, and those of Plato through Kepler and Riemann have been proven correct—at least as far as these went—then what conclusions follow for the determination of musical pitch today? Let us briefly outline the compelling reasons for

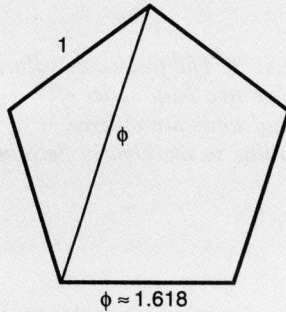


FIGURE 1. *The Golden Section arises as the ratio of the side to the diagonal of a pentagon.*

C=256Hz as the only acceptable scientific tuning, which have emerged from a review of the classical work of Kepler *et al.* as well as modern scientific research.

The human voice, the basic instrument in music, is also a living process. Leonardo and Luca Pacioli demonstrated that all living processes are characterized by a very specific internal geometry, whose most direct visible manifestation is the morphological proportion of the Golden Section. In elementary geometry, the Golden Section arises as the ratio between the side and the diagonal of a regular pentagon (see Figure 1). The Golden Section naturally forms what we call a self-similar geometric series—a growth process in which each stage forms a Golden Section ratio with the preceding one. Already before Leonardo da Vinci, Leonardo Pisano (also called Fibonacci) demonstrated that the growth of populations of living organisms always follows a series derived from the Golden Section. In extensive morphological studies, Leonardo da Vinci showed that the Golden Section is the essential characteristic of construction of *all* living forms. For example, Figure 2 illustrates the simplest Golden Section proportions of the human body.

Since music is the product of the human voice and human mind—i.e., of living processes—therefore, everything in music must be coherent with the Golden Section. This was emphatically the case for the development of Western music from the Italian Renaissance up through Bach, Mozart, and Beethoven.

The Classical well-tempered system is itself based on the Golden Section. This is very clearly illustrated with

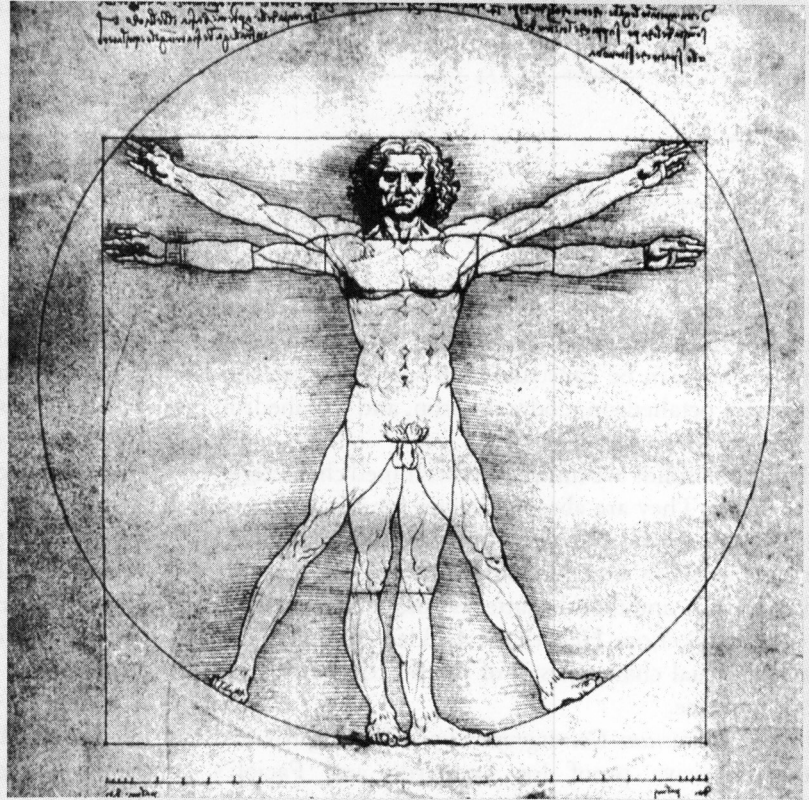


FIGURE 2. *Leonardo da Vinci's drawing of the human body inscribed in a circle demonstrates Golden Section proportions.*

the following two series of tones, whose musical significance should be evident to any musician: C–E \flat –G–C, and C–E–F \sharp –G. In the first series, the differences of the frequencies between the successive tones form a self-similar series in the proportion of the Golden Section. The frequency differences of the second series decrease according to the Golden Section ratio (see Figure 3).

The Golden Section

To understand the well-tempered system better, we must first examine the reason why certain specific proportions, especially the Golden Section, predominate in our universe, whereas others do not.

There is nothing mysterious or mystical about the appearance of the Golden Section as an “absolute value” for living processes. Space itself—that is, the visual space in which we perceive things—has a specific “shape” coherent with the Golden Section. For, space does not exist as an abstract entity independent of the physical universe, but is itself *created*. The geometry of space reflects the characteristic curvature underlying the pro-

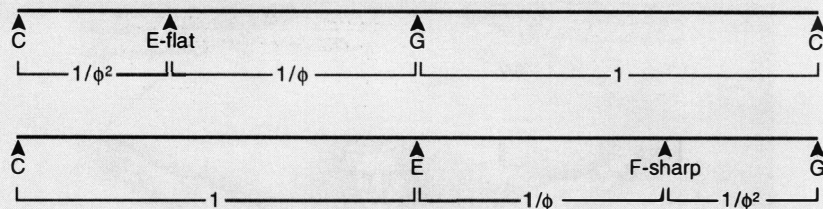


FIGURE 3. The frequency values of these two basic series of musical tones are ordered according to the Golden Section.

cess of generation of the universe as a whole. We know that space has a specific shape, because only five types of regular solids can be constructed in space: the tetrahedron, cube, octahedron, dodecahedron, and icosahedron (see Figure 4).

These five solids are uniquely determined characteristics of space. They are absolute values for all of physics, biology, and music. Indeed, Luca Pacioli emphasized that all the solids are derived from a single one, the dodecahedron, and that the latter is uniquely based upon the Golden Section. Hence, the Golden Section is the principal visual characteristic of the process of creation of the universe.

In his *Mysterium Cosmographicum*, Kepler provided further, decisive proof for Leonardo and Pacioli's method. He demonstrated that the morphology of the solar system, including the proportions of the planetary orbits, is derived from the five regular solids and the Golden Section. Figure 5 shows Kepler's famous construction of the planetary orbits through a nested series of concentric spheres, whose spacing is determined by inscribed regular solids. Therefore, the solar system has the same morphological characteristics as living organisms.

Kepler located the underlying reason for these morphological characteristics in the generating process of the universe itself, and this he attempted to identify with the help of what is called the *isoperimetric theorem*. This theorem states that among all closed curves having a given parameter, the circle is the unique curve which encloses the greatest area. Circular action is the maximally efficient form of action in visible space, and therefore coheres uniquely with the *bel canto* musical tone and the beam generated by a laser. Kepler reasoned that if circular action reflects uniquely the creative process of the universe, then the form of everything which exists—of atoms and molecules, of the solar system, and the musical system—must be constructible using nothing but circular action.

By this procedure, called "synthetic geometry," we generate from the circle, by folding it upon itself (i.e., circular action applied to itself), a straight line, the diam-

eter. By folding again, we obtain a point, the center of the circle, as the intersection of two diameters, as in Figure 6. This alone creates for us the basic "elements" of plane geometry. Also, by rotating a circle we obtain the sphere (see Figure 7).

Further constructions, using circular action alone, generate the regular polygons—the equilateral triangle, square, and pentagon—which form the faces of the five regular solids. From these uniquely determined polygons, Kepler derived the fundamental musical intervals of the fifth, fourth, and major third, *without any reference to overtones*. These polygons embody the principle of self-division of circular action by 3, 4, and 5. The octave, or division by 2, we already obtained as the very first result of folding the circle against itself. From division by 2, 3, 4, and 5 we obtain, following Kepler, the following values for the basic musical intervals: octave, 1:2; fifth, 2:3; fourth, 3:4; major third, 4:5.

Division by seven is invalid, Kepler argued, because the heptagon is not constructible from circular action alone, nor does it occur in any regular solid. Since Kepler's musical ratios are uniquely coherent with the regular solids, they are uniquely coherent with the Golden Section underlying those solids.

Kepler went on to demonstrate that the angular velocities of the planets as they move in their elliptical orbits around the sun, are themselves proportioned according to the same ratios as the fundamental musical intervals (see Table I, page 56). Since Kepler's time, similar relations have been demonstrated in the system of moons of various planets, and provisionally also even in the motion of spiral galaxies.

C=256 As a 'Keplerian Interval'

C=256 has a uniquely defined astronomical value, as a Keplerian interval in the solar system. The period of one cycle of C=256 ($1/256$ of a second) can be constructed as follows. Take the period of one rotation of the Earth. Divide this period by 24 ($=2 \times 3 \times 4$), to get one hour. Divide this by 60 ($=3 \times 4 \times 5$) to get a minute, and again by 60 to obtain one second. Finally, divide that second

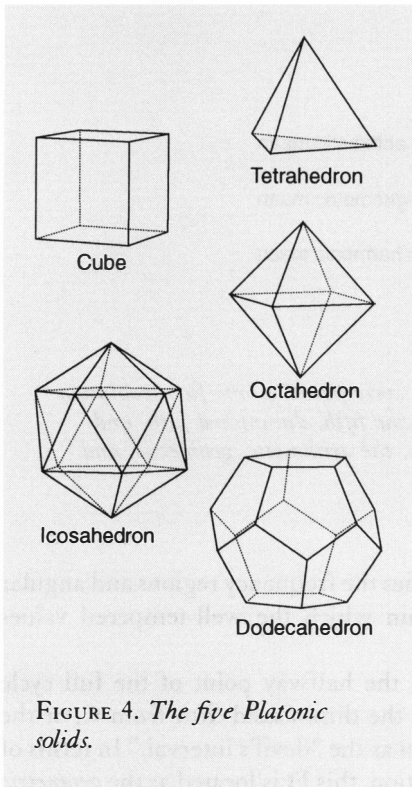


FIGURE 4. The five Platonic solids.

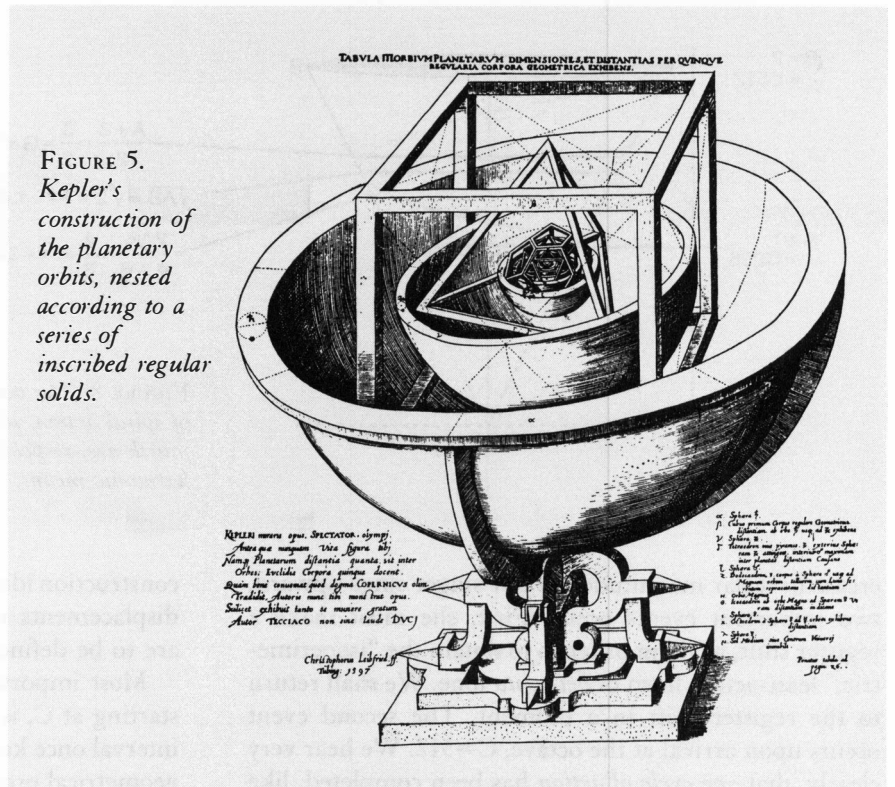


FIGURE 5. Kepler's construction of the planetary orbits, nested according to a series of inscribed regular solids.

by 256 ($=2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$). These divisions are all Keplerian divisions derived by circular action alone. It is easy to verify, by following through the indicated series of divisions, that the rotation of the Earth is a "G," twenty-four octaves lower than C=256. Similarly, C=256 has a determinate value in terms of the complete system of planetary motions.

By contrast, A=440 is a purely arbitrary value, having no physical-geometrical justification. A=440 is an insane tuning in the rigorous sense that it bears no coherent relationship with the universe, with reality.

Today, we can add some essential points to this. Kepler's solution was absolutely rigorous, as far as it went; however, circular action is only an incomplete representation of creative action in the universe. The next great step was taken by Carl Friedrich Gauss at the beginning of the nineteenth century. Gauss introduced *conical spiral action*, instead of mere circular action, as the basis for synthetic geometry. Spiral action combines the isoperimetric principle of the circle with the principle of growth expressed by the Golden Section.

Let us demonstrate conical spiral action in the *bel canto* voice. Have a soprano sing a scale upward, starting at middle C ($=256$). As the frequency increases, so does the intensity of the sound produced. The more precise term for this intensity is "energy flux density." But this increase is not merely linear extension, not merely in-

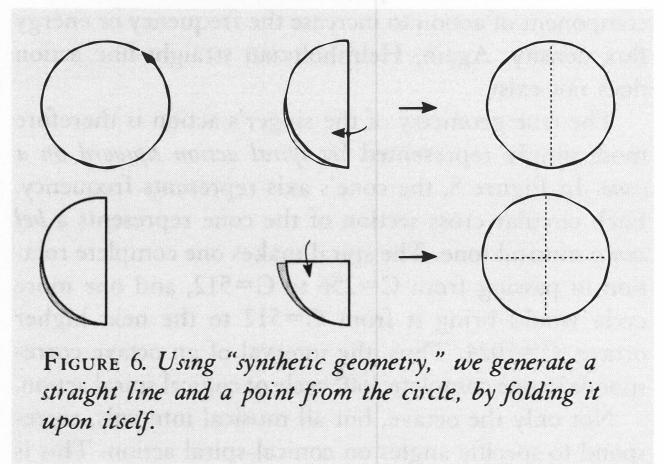


FIGURE 6. Using "synthetic geometry," we generate a straight line and a point from the circle, by folding it upon itself.

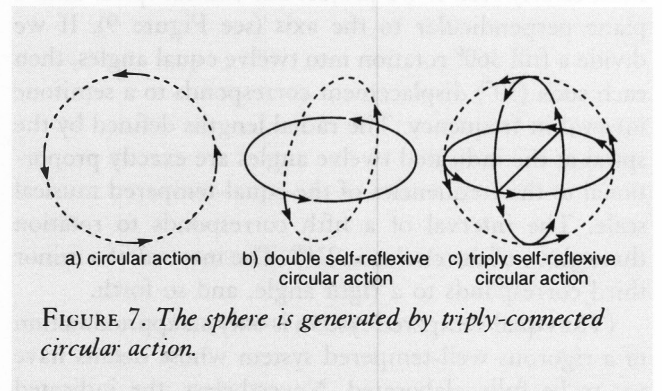
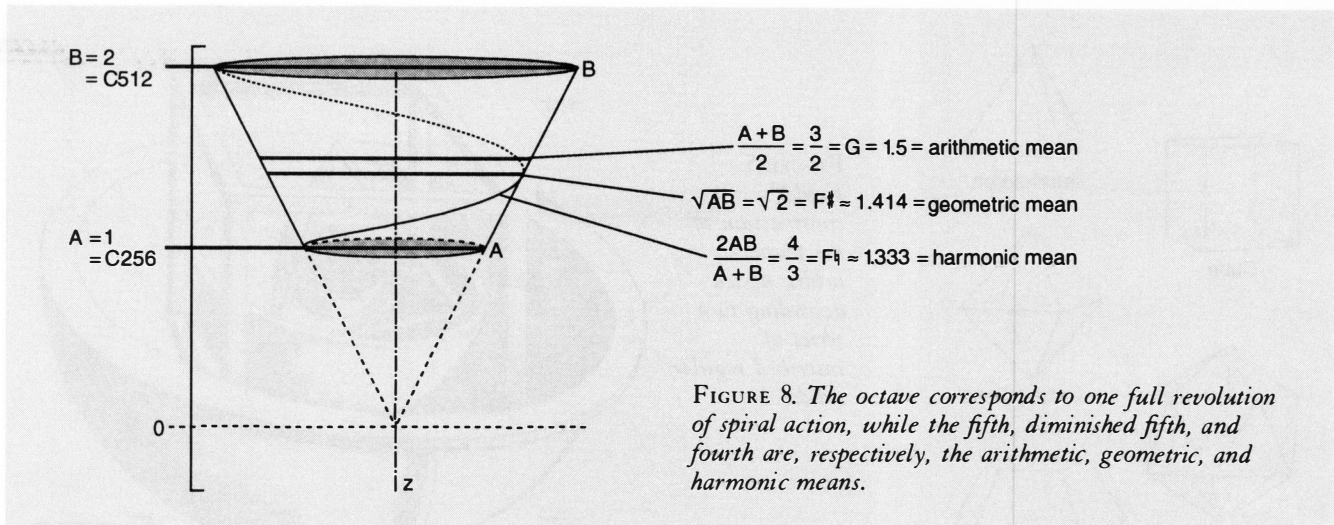


FIGURE 7. The sphere is generated by triply-connected circular action.



crease in scalar magnitude. As our singer sings upward, two important events occur. First, she must make a register shift, at $F\#$, in order to maintain the “isoperimetric,” least-action form of *bel canto* tone. We shall return to the register shift in a moment. The second event occurs upon arrival at the octave, $C=512$. We hear very clearly, that *one cycle of action* has been completed, like a 360° rotation. This proves that there is a *rotational* component of action to increase the frequency or energy flux density. Again, Helmholtzian straight-line action does not exist.

The true geometry of the singer’s action is therefore most simply represented by *spiral action upward on a cone*. In Figure 8, the cone’s axis represents frequency. Each circular cross-section of the cone represents a *bel canto* musical tone. The spiral makes one complete rotation in passing from $C=256$ to $C=512$, and one more cycle would bring it from $C=512$ to the next higher octave, $C=1024$. Thus, the interval of an octave corresponds to one complete 360° cycle of conical spiral action.

Not only the octave, but all musical intervals, correspond to specific angles on conical-spiral action. This is most clearly seen if we project our conical spiral onto a plane perpendicular to the axis (see Figure 9). If we divide a full 360° rotation into twelve equal angles, then each such (30°) displacement corresponds to a semitone interval in frequency. The radial lengths defined by the spiral at the indicated twelve angles are exactly proportional to the frequencies of the equal-tempered musical scale. The interval of a fifth corresponds to rotation through $\frac{7}{12}$ of the circle, or 210° . The interval of a minor third corresponds to a right angle, and so forth.

(The equal-tempered system is only an approximation of a rigorous well-tempered system whose details have yet to be fully elaborated. Nevertheless, the indicated

construction identifies the frequency regions and angular displacements within which the well-tempered values are to be defined.)

Most important, the halfway point of the full cycle starting at C , is $F\#$, the diminished fifth from C , or the interval once known as the “devil’s interval.” In terms of geometrical proportion, this $F\#$ is located as the *geometric mean* of $C=256$ and its octave, $C=512$.

If we carry out synthetic geometry constructions with conical spiral action, just as Kepler did with circular action, we discover wonderful things. For example, construct the characteristic of the conical volume bounded

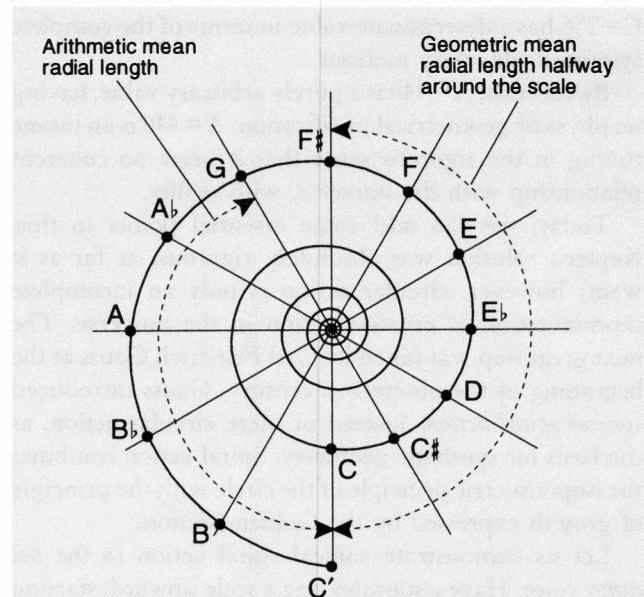
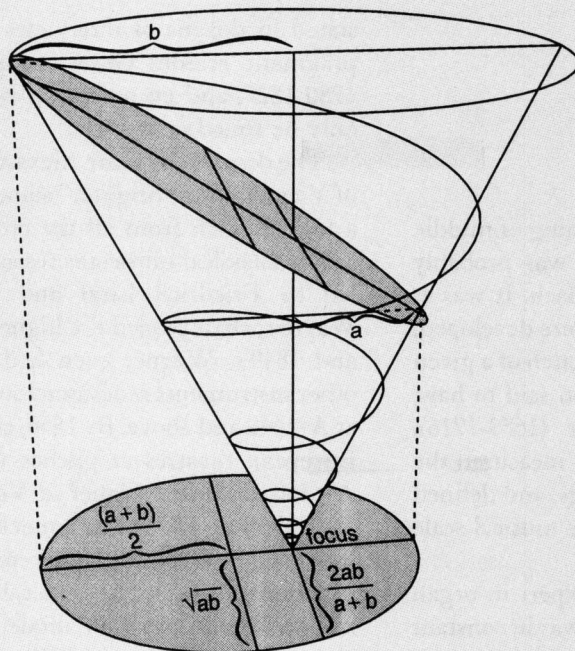
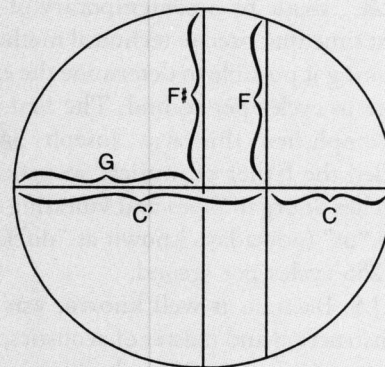


FIGURE 9. The self-similar conical spiral projected onto a plane, showing the intervals of the equal-tempered scale.

FIGURE 10.
Projection onto a plane of the ellipse formed by slicing diagonally between the circular cuts representing $C=256$ and $C=512$, showing the important division points of the octave.



a is the radius at perihelion
 b is the radius at aphelion
 $2ab/(a + b)$ is the harmonic mean,
 which occurs at the latus rectum
 $(a + b)/2$ is the semi-major axis
 \sqrt{ab} is the semi-minor axis



by the circles at $C=256$ and $C=512$, by slicing the cone diagonally across those two circles. The result is an ellipse. Project this ellipse onto the plane. The principal parameters of the resulting plane ellipse define exactly the frequency ratios for the most important division-points of the octave (see Figure 10):

- $C=256$ corresponds to the perihelion of the ellipse
- $C=512$ corresponds to the aphelion
- F corresponds to the semi-latus rectum
- $F\sharp$ corresponds to the semi-minor axis
- G corresponds to the semi-major axis

At the same time, F , $F\sharp$, and G correspond to the harmonic, geometric, and arithmetic means, respectively, of the octave. These three means formed the basis of classical Greek theories of architecture, perspective, and music. The same notes F , $F\sharp$, and G mark the principal division of the basic C -major scale. This scale consists of two congruent tetrachords: $C-D-E-F$ and $G-A-B-C$. The dividing-tone is $F\sharp$.

Physical Significance Of the Register Shift

Let us now return to our soprano. She makes the first register shift, from first to second register, exactly at this point of division. The first tetrachord, $C-D-E-F$, is sung in the first register, while $G-A-B-C$ are sung in the second register. The register shift divides the scale ex-

actly at the geometrical-mean or halfway point in the cycle of conical spiral action. The same process repeats in the next-higher octave, where the shift from second to third register of the soprano comes once again at $F\sharp$, the geometric mean.

The *bel canto* shift is a physical event of fundamental importance, and not merely a technical question for the voice. In physical terms, the register shift constitutes a singularity, a nonlinear phase change comparable to the transformation from ice to water or water to steam. An even better comparison is to the biological process of cell division (mitosis). In every case, we see that in $C=256$ tuning, the region of this singularity coincides with the principal *geometrical division* of conical spiral action. (Here we take the soprano voice, for musical and developmental reasons, as the fundamental reference for the human voice in general.)

Our solar system also makes a "register shift." It has long been noted that the inner planets (Mercury, Venus, Earth, and Mars) all share such common features as relatively small size, solid silico-metallic surface, few moons, and no rings. The outer planets (Jupiter, Saturn, Uranus, and Neptune) share a second, contrasting set of characteristics: large size, gaseous composition, many moons, and rings. The dividing-point between these two sharply contrasting "registers" is the asteroid belt, a ring-like system of tens of thousands of fragmentary bodies believed to have arisen from an exploded planet.

It is easy to verify that the solar-system register shift

A Brief History of Tuning

The first explicit reference to the tuning of middle C at 256 oscillations per second was probably made by a contemporary of J.S. Bach. It was at that time that precise technical methods were developed, making it possible to determine the exact pitch of a given note in cycles per second. The first person said to have accomplished this was Joseph Sauveur (1653-1716), called the father of musical acoustics. He measured the pitches of organ pipes and vibrating strings, and defined the "ut" (nowadays known as "do") of the musical scale at 256 cycles per second.

J.S. Bach, as is well known, was an expert in organ construction and master of acoustics, and was in constant contact with instrument builders, scientists, and musicians all over Europe. So we can safely assume that he was familiar with Sauveur's work. In Beethoven's time, the leading acoustician was Ernst Chladni (1756-1827), whose textbook on the theory of music explicitly defined $C=256$ as the scientific tuning. Up through the middle of the present century, $C=256$ was widely recognized as the standard "scientific" or "physical" pitch.

In fact, $A=440$ has never been the international standard pitch, and the first international conference to impose $A=440$, which failed, was organized by Nazi Propaganda Minister Joseph Goebbels in 1939.

Throughout the seventeenth, eighteenth, and nineteenth centuries, and in fact into the 1940's, all standard U.S. and European textbooks on physics, sound, and music took as a given the "physical pitch" or "scientific pitch" of $C=256$, including Helmholtz's own texts themselves. Figure 13 shows pages from two standard modern American textbooks, a 1931 standard phonetics text, and the official 1944 physics manual of the U.S. War Department, which begin with the standard definition of musical pitch as $C=256$.¹

Regarding composers, all "early music" scholars agree that Mozart tuned at precisely at $C=256$, as his A was in the range of $A=427-430$. Christopher Hogwood, Roger Norrington, and dozens of other directors of original-instrument orchestras, established the practice during the 1980's of recording all Mozart works at precisely $A=430$, as well as most of Beethoven's symphonies and piano concertos. Hogwood, Norrington, and others have

stated in dozens of interviews and record jackets, the pragmatic reason: German instruments of the period 1780-1827, and even replicas of those instruments, can only be tuned at $A=430$.

The demand by Czar Alexander, at the 1815 Congress of Vienna, for a "brighter" sound, began the demand for a higher pitch from all the crowned heads of Europe. While Classical musicians resisted, the Romantic school, led by Friedrich Liszt and his son-in-law Richard Wagner, championed the higher pitch during the 1830's and 1840's. Wagner even had the bassoon and many other instruments redesigned so as to be able to play only at $A=440$ and above. By 1850, chaos reigned, with major European theatres at pitches varying from $A=420$ to $A=460$, and even higher at Venice.

In the late 1850's, the French government, under the influence of a committee of composers led by *bel canto* proponent Giacomo Rossini, called for the first standardization of the pitch in modern times. France consequently passed a law in 1859 establishing A at 435, the lowest of the ranges of pitches (from $A=434$ to $A=456$) then in common use in France, and the highest possible pitch at which the soprano register shifts may be maintained close to their disposition at $C=256$. It was this French A to which Verdi later referred, in objecting to higher tunings then prevalent in Italy, under which circumstance "we call A in Rome, what is B^b in Paris."

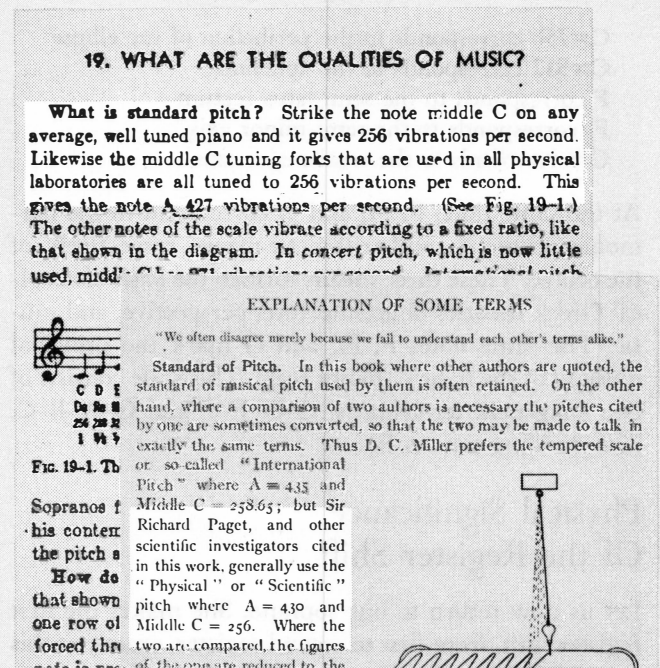


FIGURE 13. Into the 1940's, textbooks assumed $C=256$.

Following Verdi's 1884 efforts to institutionalize A=432 in Italy, a British-dominated conference in Vienna in 1885 ruled that no such pitch could be standardized. The French, the New York Metropolitan Opera, and many theatres in Europe and the U.S., continued to maintain their A at 432-435, until World War II.

The first effort to institutionalize A=440 in fact was a conference organized in 1939 by Joseph Goebbels, who had standardized A=440 as the official German pitch. Professor Robert Dussaut of the National Conservatory of Paris told the French press that, "By September 1938, the Acoustic Committee of Radio Berlin requested the British Standard Association to organize a congress in London to adopt internationally the German Radio tuning of 440 periods. This congress did in fact occur in London, a very short time before the war, in May-June 1939. No French composer was invited. The decision to raise the pitch was thus taken without consulting French musicians, and against their will." The Anglo-Nazi agreement, given the outbreak of war, did not last, so that A=440 still did not stick as a standard pitch.

A second congress in London of the International Standardizing Organization met in October 1953, to again attempt to impose A=440 internationally. This conference passed such a resolution; again no Continental musicians who opposed the rise in pitch were invited, and the resolution was widely ignored. Professor Dussaut of the Paris Conservatory wrote that British instrument makers catering to the U.S. jazz trade, which played at A=440 and above, had demanded the higher pitch, "and it is shocking to me that our orchestra members and singers should thus be dependent upon jazz players." A referendum by Professor Dussaut of 23,000 French musicians voted overwhelmingly for A=432.

As recently as 1971, the European Community passed a recommendation calling for the still non-existent international pitch standard. The action was reported in "The Pitch Game," *TIME* magazine, Aug. 9, 1971. The article states that A=440, "this supposedly international standard is widely ignored." Lower tuning is common, including in Moscow, *TIME* reported, "where orchestras revel in a plushy, warm tone achieved by a larynx-relaxing A=435 cycles," and at a performance in London "a few years ago," British church organs were still tuned a half-tone lower, about A=425, than the visiting Vienna Philharmonic, at A=450.

1. G. Oscar Russell, *Speech and Voice* (New York: Macmillan, 1931); Charles E. Dull, *Physics Course 2: Heat, Sound, and Light: Education Manual 402* (New York: Henry Holt, April 1944).

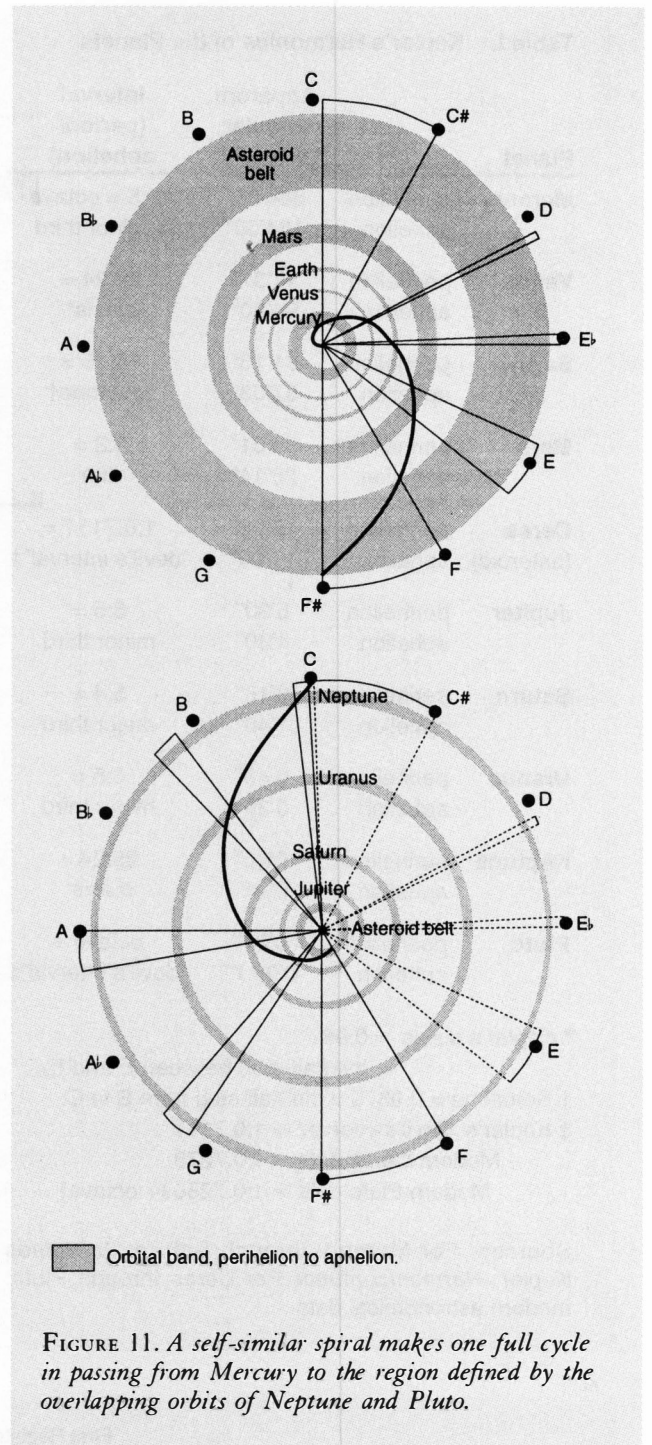


FIGURE 11. A self-similar spiral makes one full cycle in passing from Mercury to the region defined by the overlapping orbits of Neptune and Pluto.

falls exactly in the same, geometric-mean position, as the shift of the soprano voice in the proper C=256 tuning (see Figure 11). If we begin at the outer layer of the sun, and construct a self-similar (logarithmic) spiral making exactly one rotation in passing from that layer to the orbit of the innermost planet, Mercury, then the continuation of that spiral will make exactly one full cycle

Table I. Kepler's Harmonies of the Planets

Planet		Apparent angular velocity	Interval (period/aphelion)
Mercury	perihelion	384'00"	12:5 = octave + minor third
	aphelion	164'00"	
Venus	perihelion	97'37"	25:24 = diesis*
	aphelion	94'50"	
Earth	perihelion	61'18"	16:15 = semitone†
	aphelion	57'03"	
Mars	perihelion	38'01"	3:2 = fifth
	aphelion	26'14"	
Ceres (asteroid)	perihelion	15'06"	1:0.7111 = "devil's interval"‡
	aphelion	11'00"	
Jupiter	perihelion	5'30"	6:5 = minor third
	aphelion	4'30"	
Saturn	perihelion	2'15"	5:4 = major third
	aphelion	1'46"	
Uranus	perihelion	0'46"	6:5 = minor third
	aphelion	0'39"	
Neptune	perihelion	0'22"	25:24 = diesis*
	aphelion	0'21"	
Pluto	perihelion	0'24"	octave + "devil's interval"‡
	aphelion	0'08.7"	

* Kepler's diesis = 0.96
= the half-step between E and Eb.

† Semitone = 0.9375 = the half-step from B to C.

‡ Kepler's "devil's interval" = 1:0.7111
Modern Ceres data = 1:0.7278
Modern Pluto data = 1:0.7250 (+ octave)

Sources: For Mercury through Saturn: Johannes Kepler, *Harmonici mundi*. For Ceres through Pluto: modern astronomical data.

in passing from Mercury to the region defined by the overlapping orbits of Neptune and Pluto. The halfway or geometric-mean point comes exactly at the outer boundary of the asteroid belt. More precisely, if we compare the planetary spiral with our simple spiral derivation of the equal-tempered system, letting the interval from Mercury to Neptune-Pluto correspond to the octave C-C, then the planetary orbits correspond exactly in angular displacements to the principal steps of the scale. The asteroid belt occupies exactly the angular position corresponding to the interval between F and F#; this region is where the soprano makes the register shift, in C=256 tuning. Thus, complete coherence obtains, with this tuning, between the human voice, the solar system, the musical system, and the synthetic geometry of conical spiral action.²

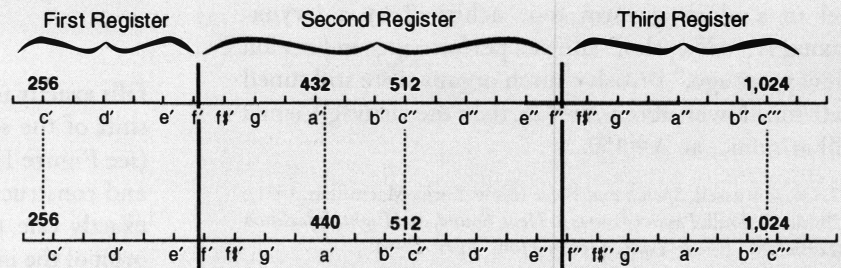
Figure 12 illustrates what happens if the tuning is arbitrarily raised, from C=256 (corresponding to A between 427Hz and 432Hz) to, for example, A=449. The soprano register shifts (at approximately 350Hz and 700Hz) lie, in the higher tuning, between E and F, rather than between F and F#. This divides the octave in the wrong place, destroys the geometry of the musical system, destroys the agreement between music and the laws of the universe, and finally, destroys the human voice itself.

If we arbitrarily changed the "tuning" of the solar system in a similar way, it would explode and disintegrate! God does not make mistakes: Our solar system functions very well with its proper tuning, which is uniquely coherent with C=256. This, therefore, is the only scientific tuning.

NOTES

1. Bernhard Riemann, "Über die Fortpflanzung flacher Luftschwingungen von endlicher Weite," in *Gesammelte mathematische Werke*, ed. H. Weber (Leipzig, 1876), pp. 145-164. English translation: "On the Propagation of Plane Air Waves of Finite Amplitude," *International Journal of Fusion Energy* (1980), Vol. 2, No. 3.
2. Recent work by the late Dr. Robert Moon and associates has extended this coherence to the "microcosm" of subatomic physics.

FIGURE 12. At A=432 or below (top scale), the register shift occurs between F and F#; at A=440 or above (bottom scale), it is forced downward to between E and F.



THE SCIENCE OF MUSIC



Fight Continues for Verdi's 'Scientific Tuning' of C=256Hz

Legislation to return to Verdi's scientific tuning of C=256Hz was proposed at a Schiller Institute conference on "Music and Classical Aesthetics" held April 9-10, 1988 in Milan, Italy. The conference was addressed by soprano Renata Tebaldi, baritone Piero Cappuccilli, and Mrs. Helga Zepp-LaRouche, founder of the Institute.

Since that time, the Institute has circulated a petition in support of this legislation, which was introduced into the Italian Parliament in 1988.

Heavy pressure from the U.S. was brought to bear on the Italian Parliament to suppress the legislation, and upon individual signers of the petition to withdraw their support. As a result, the proposed law was temporarily defeated. However, the Schiller Institute continues the fight for scientific tuning. The names of some amongst the most prominent of the fine musicians who continue to support this effort are listed below. If you have not yet signed the petition, which appears on the following page, please do so and return it to the Schiller Institute.

Sherrill Milnes (baritone)
Dame Joan Sutherland (soprano)
Piero Cappuccilli (baritone)
Richard Bonyngé (conductor)
Carlo Bergonzi (tenor)
Christa Ludwig (mezzosoprano)
Giuseppe di Stefano (tenor)
Elly Ameling (soprano)
Bidu Sayão (soprano)
Peter Schreier (tenor)
Birgit Nilsson (soprano)
Dietrich Fischer-Dieskau (baritone)
Fedora Barbieri (mezzosoprano)
Grace Bumbry (soprano)
Fiorenza Cossotto (mezzosoprano)

Norman Shetler (pianist)
Luciano Pavarotti (tenor)
Leona Mitchell (soprano)
Mirella Freni (soprano)
Diane Kesling (mezzosoprano)
Gilda Cruz-Romo (soprano)
Louis Quilico (baritone)
Nikolai Ghiaurov (basso)
Joseph Rouleau (basso)
Ivo Vinco (basso)
Jascha Silberstein (cellist)
Renato Bruson (baritone)
Henry Pleasants (author)
Ruggero Raimondi (basso)
Mara Zampieri (soprano)

Kurt Moll (basso)
Maria Chiara (soprano)
Bruno Rigacci (conductor)
Elizabeth Mannion (mezzosoprano)
Gian Paolo Sanzogno (conductor)
Bodil Frolund (pianist)
Alberta Masiello (conductor)
Anthony Amato (director)
Jodi Laski-Mihova (soprano)
Anthony Morss (conductor)
Mrs. Gerd Schiotz (widow of Aksel Schiotz)
James Morris (basso)

Petition and Proposed Legislation For the Return to the Classical Pitch of $C=256\text{Hz}$

WHEREAS, The continual raising of pitch for orchestras provokes serious damage to singers, who are forced to adapt to different tunings from one concert hall or opera to the next, thus altering the original texture and even the key of the works they perform; and

WHEREAS, The high standard pitch is one of the main reasons for the crisis in singing, which has given rise to “hybrid” voices unable to perform the repertoire assigned to them; and

WHEREAS, In 1884, Giuseppe Verdi mobilized the Italian government to issue a decree establishing $A=432$ cycles (corresponding to middle $C=256$) as the “scientific standard pitch,” correctly stating in a letter to the government’s Music Commission, that it was absurd that “the note called A in Paris or Milan should become a $B\flat$ in Rome”; and

WHEREAS, Even for many instruments, among them the Cremona violins, ancient organs and even the piano, modern high tuning is deleterious, in that it does not take physical laws into account;

THEREFORE, the undersigned demand that the Ministries of Education, Arts and Culture, and Entertainment accept and adopt the normal standard pitch of $A=432$ for all Italian music institutions and opera houses, such that it become the official Italian standard pitch, and, very soon, the official standard pitch universally.

SIGNED: _____

Print Name: _____

Position: _____

Return signed petitions to:

Schiller Institute, Inc., P.O. Box 66082, Washington, D.C. 20035-6082
or call: (800) 543-1462.



THE SCIENCE OF MUSIC



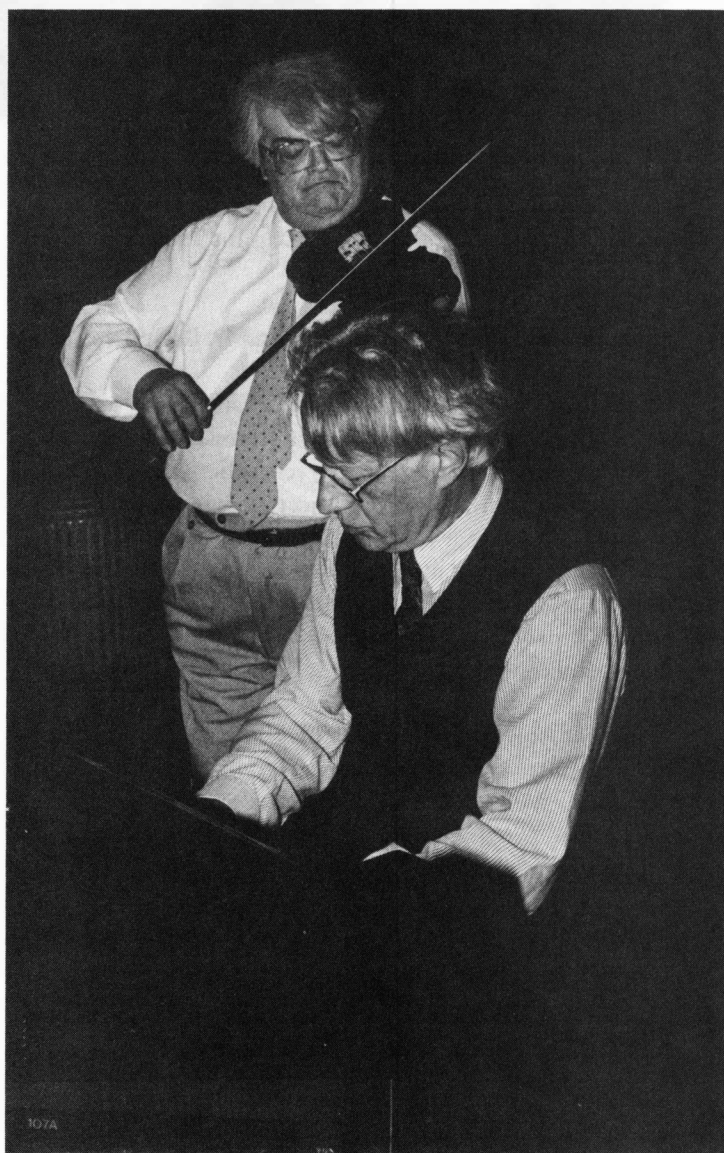
INTERVIEW / Norbert Brainin

'LaRouche drew my attention to the scientific side of music'

Fidelio: Professor Brainin, in forty years with the Amadeus Quartet and now the Amadeus Trio, you did hundreds of recordings and concerts all over the world. Why have you come from Europe just for this special June 6 concert in Washington?

Brainin: I have come to draw attention to the imprison-

Norbert Brainin was the first violinist with the famed Amadeus Quartet until the 1987 death of violist Peter Schidlof. This interview was conducted by Kathy Wolfe and Hartmut Cramer in Washington, D.C. on June 6, 1990, the day that Brainin, together with pianist Günter Ludwig, performed a concert featuring Mozart's Sonata in E-flat major, K. 481; Brahms' Sonata in A major, Op. 100; and Beethoven's Sonata in G major, Op. 96. Brainin also demonstrated the Saraband and Double from J.S. Bach's unaccompanied violin Partita No. 1, both at today's prevailing higher tuning, and at the Classical pitch of C=256. The concert was recorded by National Public Radio.



Violinist Norbert Brainin and pianist Günter Ludwig.



Brainin with Schiller Institute founder Helga Zepp-LaRouche.

‘Obviously Beethoven thought of man as made in the image of God, as is traditional from the Jewish and Christian idea of God and man. He regarded himself as working in this direction, as working for God.’

Brainin: It was on my part a kind of rejoicing about the events that happened in the German Democratic Republic and other parts of Eastern Europe. It was an inspiration how the people of the G.D.R. conducted themselves in this revolution. It was like a breath of fresh air! I wanted to show my appreciation, and the Schiller Institute very kindly arranged this concert.

ment of Mr. Lyndon LaRouche, to the injustice of it all, to help in this way, and to cheer up his friends in their fight for his release.

Fidelio: How long have you known Mr. LaRouche, and how did you come to know him?

Brainin: I came to know Mr. LaRouche actually through the music. We used to talk music together, and he drew my attention to the scientific side of music, namely, the tuning, which most people just take for granted, the way it is, or use it in an arbitrary manner. He pointed out that there is a *science* to this tuning, which is based on the human voice, and this puts an entirely new concept into our contemporary musical understanding.

Fidelio: And what do you think about the fact that he’s in jail under such circumstances?

Brainin: Well, he’s obviously innocent, and it is very obvious to people like me that the reason for his imprisonment is political.

Fidelio: Isn’t this ironic in light of the freedom revolt in Eastern Europe?

Brainin: Yes it is rather, it is as though the shoe were on the other foot!

Fidelio: You also gave a concert in Berlin, for the people of Berlin, in December 1989. Can you tell us why, and more about it?

Fidelio: You left Austria in 1938. Why?

Brainin: Because of the Nazi persecution of the Jews, of which I was one. I came to England. I was very lucky to come to England, because I was supposed to go to England to study with Carl Flesch in that year; but the fact that I managed to get to London under the circumstances of the Anschluss was a miracle, really, to come to a strange country where there were teachers such as Flesch and later Max Rostal to teach me. Imagine if I had not had this great luck, to be able to go where I did. I would probably not have become a musician.

Fidelio: The Amadeus Quartet you later founded has become known for interpreting especially the German masters such as Beethoven. What was your view about German music during this crucial time?

Brainin: This was *the* Classical music, German or not German, that’s not the point! When we speak of Beethoven—you say German composers like Beethoven—there are no German composers like Beethoven really, because Beethoven is so far above—I have the greatest difficulty when thinking of Beethoven’s music, to think of him as a German composer! Because he’s so far above—so universal!

The fact is that even the English, who were fighting against Germany in the last war, adopted the well-known motif of Beethoven’s Fifth Symphony as their time signal on the radio, which was ta-ta-ta tá! ta-ta-ta tá!

And those who worked in the underground armies

of Europe, their motto was also this ta-ta-ta tá! It was all Beethoven!

You don't have to be German to be for Beethoven, or for Schiller! Actually, when I come to think of what is really German, I don't think of Mozart, I don't think of Beethoven, I don't think of Haydn, not even of Brahms—but, of Mendelssohn! Mendelssohn is for me real German music, which is of a period which was looking forward, a period of German revolution, really, looking forward—*Zuversicht* [self-confidence]. It's only in Mendelssohn real German, established German! But Beethoven is a different thing altogether.

Fidelio: You said there is something universal in Bee-

'When we played quartets, I was always the one who wanted to play higher and higher! But it is only when you get down to 432Hz that it really hits the nail on the head, and you suddenly realize, *this is correct!*'



Examining instruments in the collection of the Smithsonian Institution.

thoven's music, which speaks to all mankind? Can you elaborate on that?

Brainin: Yes, it is the love and propagation of freedom, really, of which there was none, when Beethoven lived, when Mozart lived. It is in everything which Beethoven did—it was *always* freedom! The Eroica [Beethoven's Third Symphony] was supposed to be about freedom. You know he dedicated this to Napoleon, then changed his mind and tore up the dedication [when Napoleon crowned himself emperor], but it was still revolutionary, and forward-looking, and freedom-loving. So was the Ninth Symphony. This is exactly it!

Fidelio: What was the image of man of a composer such as Beethoven?

Brainin: Obviously he thought of man as made in the image of God, as is traditional in the Bible, from the Jewish and Christian idea of God and man. He was absolutely imbued with this concept, and he regarded himself as working in this direction, he regarded himself as working for God.

Fidelio: Please tell us a little about how you founded the Amadeus Quartet. Where were your colleagues; this was war!

Brainin: Yes, it was war. It started in internment, actually; we were interned. The British government in their wisdom decided to intern all German refugees, of which I was one.

Fidelio: Most of them were Jews?

Brainin: Most, but not all. I know quite a number who were not. But Jewish or not Jewish, there was not one spy amongst them, not one Nazi. Not one! Or traitor, not one of the German-speaking ones.

I met Peter in internment, and we made friends, and then later on we were parted and came to different camps. And Peter met Siegmund Nissel there.

I was released first, because the government put out a White Paper in which certain categories of people were delineated to be released, and one of them was if you were under eighteen, which I was at the time, so I was released without any further ado. But nevertheless I spent two and a half months in internment, and my colleagues were there just over a year. They wanted to get rid of them. The category under which Peter and Siggie [Nissel] were released was "eminent artists" or something, which they clearly were not—they were hardly out of school—but it sufficed, and they were released under this heading.

Fidelio: How did you meet the 'cellist of the quartet?

Brainin: The 'cellist's wife, Susan Rosza, is Hungarian; she also studied with Flesch and then with Max Rostal. She wasn't his wife then; they were engaged, and it was through her that we met Martin.

Fidelio: You said you wanted to come to support Mr. LaRouche and protest the fact that he's in jail. Wasn't there also some special musical reason for this Washington concert?

Brainin: Yes, the specific reason was to play this concert in the scientific tuning which was really brought into being again, resuscitated if you like, by Mr. LaRouche, and which is scientific because it is based on the *Beschaffenheit* [constitution] of the human voice.

At first I was not convinced of this at all! What convinced me really was, in the summer of 1988,

Mr. LaRouche came to visit me at my house in Italy, and after lunch I asked him to come to the music room, and I played Bach for him. Then Mr. LaRouche asked me to try and tune down my violin to the level of 432Hz [the tuning of A when C is tuned to 256Hz], and play some of it again.

Fidelio: What was it that you played?

Brainin: It was the *Adagio* from Bach's G minor Sonata (No. 1) and I also played some of the Saraband of the D minor Suite.

Fidelio: Why did you choose these pieces?

Brainin: They are very good to hear and to play, and they show up the polyphony. I played at the lower tuning, and I realized suddenly, "This violin sounds much better! It resonates, and the tone blooms, and the bow takes the strings better, and the notes ring. Indeed, everything about playing is facilitated in some way, which makes for better expression and interpretation."

Fidelio: So, you discussed it.

Brainin: Yes, we discussed it, and the Schiller Institute took this up and organized a few concerts for me, together with a pianist, in this lower tuning, which is not very easy to do, because it's very difficult to find a piano, and indeed a piano tuner who will do this, because from the standpoint of a professional musician, it's not pragmatic to do.

But we did it, nevertheless, and it's been very successful, always, people like it, although they may not notice the difference. And indeed after I play for a while, I forget about the tuning, I don't think about the tuning, I just think about how to play.

But if you compare, you will see that there are certain advantages to playing Classical music particularly at this lower level of tuning, which was stipulated by Giuseppe Verdi for the performance of his operas, and which is *exactly* right for the human voice.

I admit that when we played quartets, I was always the one who wanted to play higher and higher and higher! It was Peter who wanted to play lower, never as low as 432—his ideal was 440, which is about as low as anybody goes these days, and which is better, yes, but it is only when you get down to 432 that it really hits the nail on the head, and you suddenly realize, "Aha! This is right! *This* is correct! It feels right!"

Fidelio: Do you think it is just a matter of taste or convenience, what pitch we use for Classical music? Or is there some science necessary for the pitch of Classical music?

Brainin: Well, the scientific principle is really the human voice, and also, these instruments. For instance, I helped to do a scientific experiment in Cremona, with the help of Dr. [Bruno] Barosi, which showed conclusively that the violin which I used, which was a Stradivarius, sounded undoubtedly better at the lower tuning than at the higher tuning. There were more overtones, more resonance, more of everything that you expect to hear when you make music, at the lower tuning, than at the higher tuning. Quite undoubtedly. This is real proof. This experiment can be checked up on. You have the diagrams and the graphs and everything. It is quite self-explanatory.

Fidelio: You usually use this same Bach piece when you play at the lower and higher tuning. So is it that you not only want to show that it's more beautiful, but also because you want to make some sort of a scientific experiment with your concerts?

Brainin: I would not call it scientific at all, because we never measure anything in that. But what I did at various public concerts was to try and show people the difference and let them judge for themselves, without showing the scientific background really. The scientific background is usually pointed out in the program. What I'm doing is merely to let people judge for themselves which they prefer.

Usually the judgment is overwhelmingly for the lower tuning, but it is by no means unanimous. I understand that it is advantageous for the recording purpose to play higher, because the sounds register better this way, and this is probably the real reason why the pitch has gone higher, and higher, and higher, and higher.

But the higher pitch affects the interpretation of Clas-

‘One has to know and see in one’s mind’s eye. I am not a scientist myself, but I can see how the science works, and I can see what has to be done in order to do justice to this scientific element in the music.’



EIRNS/Philip Ulanowsky

Brainin and Ludwig relax after a Boston concert.

sical music, particularly with the strings, because the higher tuning means that more pressure is exerted onto the instruments, and your bowing is different, you have to press more, in fact the bow, generally speaking, goes more quickly when you tune high; therefore, you tend to play faster than you would even like to! But when you tune lower, you are inspired to play slower, which is good for some things, of course, because your articulation is greater and the clarity is greater this way. It *does* affect the interpretation.

Fidelio: Kepler wrote that the musical system has some principles which are in harmony with the natural, physical laws of the solar system. What do you think of this idea?

Brainin: I would say that the idea is obviously correct. Music is made by the composers of the Classical period who certainly have this principle in their veins, but I’m not sure whether they have actually studied it in a scientific way, I would not know about that. But in general, I would say “yes” to your question.

Fidelio: There are distinctions between Classical music

and modern music. Is one distinction that these Classical principles cannot be found in modern music?

Brainin: Yes, that is definitely so. In some, maybe, but by and large, no, their principles, if they have principles, are different from the Classical ones, and may or may not be in keeping with the laws of the universe. Some people feel this. With me it is a feeling, I have a feeling, but I am not trained in a scientific manner to pronounce upon it or to tell what the difference is exactly.

Fidelio: But the way you play music, it shows!

Brainin: It certainly does! I hope it does!

Fidelio: Can you say, then, that music is not a matter of feeling or of sentiment, but a matter of principles?

Brainin: Yes, it’s a matter of principles and of know-how or

awareness of these principles. Of course, you do have to feel it—that is how it manifests itself, in feeling. But when you do it, you have to do it according to certain principles; you have to know certain proportions, when you phrase a phrase, you have to know how this phrase is situated in the larger context of the whole work. All these things one has to know and see in one’s mind’s eye. My job as an interpreter is to see that.

I am not a scientist myself, but I can see the science, how it works, and I can see how, what should be done to bring it out, what has to be done in order to do justice to this scientific element in the music. I do know, yes. But I would not be able to talk about it in a scientific manner.

I know that some people *can* talk about it in a scientific manner, in particular, Lyndon LaRouche. He can certainly talk about it in a scientific manner, and I appreciate this greatly, but I myself cannot.

Fidelio: You prefer playing?

Brainin: Yes, I play, and I’m very happy to say that Mr. LaRouche seems to like my playing, so he must think that I do things correctly, according to his scientific mind.

A Dialogue of Two Men
 The One a Gentile, the Other a Christian
ON THE HIDDEN GOD
 (1444)
 Nicolaus of Cusa

CARDINAL NICOLAUS OF CUSA was born in 1401 in the city of Cues, opposite the city of Berncastel on the Moselle River in Germany. During the sixty-four years of his life, Cusa emerged as one of those rare universal geniuses, whose work transformed in a fundamental way not only his own generation, but generations to come.

During his life, Christian Europe was threatened militarily by the Turks. As an envoy of the Vatican, Cusa first attempted to reunite the Roman and Eastern Orthodox churches, by helping to organize the Council of Florence. He then worked to reunite the Roman Catholic Church, which was divided by the election of an anti-Pope. After the Turkish seizure of Constantinople, he proposed a policy of ecumenicism in a work entitled, "On the Peace of Faith," whose principles are still valid today. In the last years of his life as a bishop and cardinal, he battled for an internal reform of the Church which, if successful, would have corrected the abuses which contributed to the later divisive Reformation.

In the area of natural science, years before Copernicus and a century before Galileo was born, he overturned the prevailing Aristotelian view of the universe, by arguing in On Learned Ignorance that the universe is neither geocentric, nor heliocentric in the simple manner later assumed by Copernicus. Through his mathematical writings on the isoperimetric principle and the Golden Mean, he contributed directly to Johannes Kepler's founding of modern physical science. In the nineteenth century his role in contributing to the development of the concept of the transfinite was acknowledged by Georg Cantor.

The dialogue which follows, written in 1444, reflects the scientific method employed by Cusa, including his notion that the Absolute Infinite is "not other," i.e., that God as Creator is not a particular created being, although every creature derives its existence from Him. Therefore, no name created by man and attributed by him to God, can fully comprehend God's infinity. Moreover, in contrast to Aristotle, Cusa maintains that the logical law of contradiction does not apply to God, because in the Absolute Infinite there is a coincidence of opposites—since God created all opposites and thus precedes and enfolds them.

And the *Gentile* says: I see you bowed down full of reverence, shedding not false, but rather heartfelt, tears of love. I wish to know who are you?

CHRISTIAN: I am a Christian.

GENTILE: Whom do you adore?

CHRISTIAN: God.

G: Who is the God, whom you adore?

C: I do not know.

G: How can you so earnestly adore, what you do not know?

C: Because I do not know, I adore.

G: I find it astonishing, that a man is affected by something, that he does not know.

C: It is even more astonishing, that a man is affected by something, that he thinks he knows.

G: Why so?

C: Because he knows that, which he believes he knows less than that, which he knows he does not know.

G: I beseech you to explain!

C: Whoever thinks he knows something, although one can know nothing, seems insane to me.

G: It seems to me rather that you are entirely lacking in rationality, if you say one can know nothing.

C: I understand by knowledge, apprehension of the truth. Whoever says that he knows, says he has apprehended the truth.

G: I believe the same.

C: Then how can one apprehend the truth, except through it itself? For it is not apprehended, if the apprehending comes first and the apprehended afterwards.

G: I do not understand, why the truth cannot be apprehended, except through itself.

C: Do you believe, that it can be apprehended in another way and in something other?

G: I think so.

C: You are clearly in error; there is no truth outside of the truth, no circle outside of circularity, no man outside of humanity. Therefore truth is not found outside of the truth, neither otherwise, nor in something other.

G: How then is it known to me, what a man is, what a stone is, and everything else, of which I have knowledge?

C: You know nothing of these, but only believe that you have knowledge. For if I questioned you about the quiddity of that, which you think you know, you would affirm, that you cannot express the actual truth of man or the stone. But that you know the man is not a stone, comes not from the knowledge, through which you knew the man and the stone

and their difference, but rather comes from their accidents, from the diversity of their actions and shapes, upon which, when you discern them, you impose diverse names.

G: Is there one, or are there several truths?

C: There is only one: for there is only one unity, and truth coincides with unity, because it is true that there is only one unity. Just as only one unity is found in number, so only one truth is found in the many. And thus whoever does not attain unity,

will always be ignorant of number, and whoever does not attain truth in unity, can know nothing truly. And although he believes he truly knows, he nevertheless easily experiences, that that, which he believes he knows, can be known more truly. For instance, the visible can be seen more truly, than it is seen by you; it will indeed be more truly seen by more acute eyes. Hence it is not seen by you, as the visible is in truth. It is the same with hearing and the other senses. However, since everything which is known, but not with that knowledge with which it can be known, is not known in truth, but rather otherwise

and in another way (however, since otherwise and in another way from the way which is the truth, the truth is not known), he is insane, who believes he knows something in truth and is ignorant of the truth. Is not the blind man judged to be insane, who believes he knows the distinctions of color, when he is ignorant of colors?

G: Which man then is knowing, if one can know nothing?

C: One is appraised to be knowing, who knows his ignorance, and only he will revere the truth, who knows that he can apprehend nothing without it, neither being, nor living, nor understanding.

G: Perhaps it is that, which attracts you to adoration, namely the desire to be in the truth.



Albrecht Dürer, Peter of Almastra, 1500.

C: Exactly this, which you say. For I worship God, not him, whom you Gentiles falsely name and think you know, but rather God Himself, who is the ineffable truth itself.

G: Now since you, brother, worship the God, who is truth, and since we do not intend to worship a God, who is not God in truth, I ask you, what is the difference between you and us?

C: There are many differences, but the greatest one of these is that we worship the absolute, unmixed, eternal, and ineffable truth itself; you, however, do not worship it as it is, absolute in itself, but rather as it is in its actions, not absolute unity, but rather unity in number and multitude. And you are in error, for the truth, which is God, is not communicable to another.

G: I ask you, brother, to lead me to it, so that I can understand that, which you know about your God. Answer me: What do you know about the God, whom you adore?

C: I know, that everything which I know, is not God, and that everything I conceive, is no comparison to Him, but rather He excels it.

G: Therefore God is nothing.

C: He is not nothing, for even this nothing has the name nothing.

G: If He is not nothing, is He therefore something?

C: He is also not something, for something is not everything. However, God is not something rather than everything.

G: Astonishingly, you affirm the God whom you adore, is neither nothing, nor something; that, no rationality comprehends.

C: God is above nothing and something. The nothing obeys Him, so that it becomes something. And this is His omnipotence, through which power He exceeds everything, which is or is not, and that which is and that which is not obeys Him in like manner. For He causes not-being to pass over into being, and being into not-being. Therefore, He is nothing of those things, which are under Him and which His omnipotence precedes. And, since everything comes from Him, one can no more call Him this than that.

G: Can He not be named at all?

C: What is named, is small. He, whose magnitude cannot be conceived, remains ineffable.

G: Is He therefore ineffable?

C: He is not ineffable, but rather above everything effable, since He is the cause of everything nameable. How could He, who gives a name to the others, Himself remain without a name?

G: Therefore He is both effable and ineffable.

C: This neither. For God is not the root of contradiction, but rather He is the simplicity prior to every root. Hence one also cannot

say, that He is effable and ineffable.

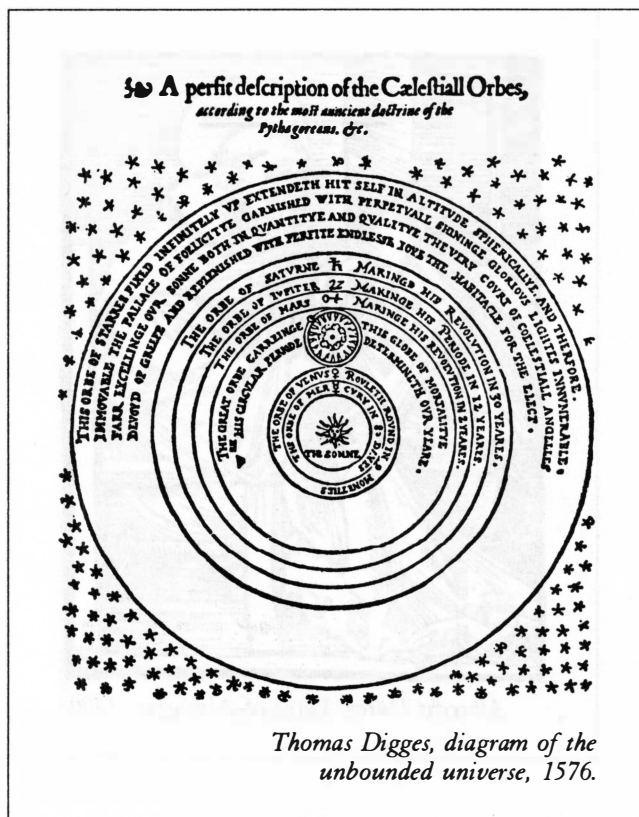
G: What, then, do you say concerning Him?

C: That He is neither named nor not named, nor named and not named, but rather that everything, which can be said, disjunctive and copulative, in agreement or contradiction, on account of the excellence of His infinity, does not correspond to Him. He is the one origin before any formable cogitation concerning Him.

G: Therefore God does not correspond to being.

C: You speak correctly.

G: He is therefore nothing!



C: He is neither nothing nor is He not, nor is He and is He not; rather He is the font and the origin of all principles of being and not-being.

G: Is God the font of the principles of being and not-being?

C: No.

G: But you have just stated this.

C: I have said the truth, when I said it, and now say the truth when I deny it. For if there are principles of being and not-being, then God precedes them. But not-being does not have as its principle not being, but rather being. For not-being needs a principle, in order to be. Therefore being is the principle of not-being, because not-being does not exist without it.

G: Is God not truth?

C: No, rather He precedes all truth.

G: Is He something other than the truth?

C: No, for otherness does not befit Him; rather, He is infinitely more excellent than everything, that is conceived and named by us as truth.

G: Do you not name God, God?

C: We name Him thus.

G: Are you speaking truly or falsely?

C: Neither the one nor both. For we do not say the true, if we say, that this is His name, and we do not say something false, for it is not false, that it is His name. And we also do not say the true and the false, for His simplicity precedes everything nameable and not nameable.

G: Why do you name Him God, although you are ignorant of His name?

C: On account of the similitude to perfection.

G: I beseech you to explain.

C: The name God [*Deus*] comes from *theo*, which

means "I see." For God is in our domain, as vision is in the domain of color. Color can only be attained through vision, and so that any color whatsoever could be attained, the center of vision is without color. In the domain of color, therefore, vision is not found that is without color. Hence, in regard to the domain of color, vision is nothing rather than something. For the domain of color does not attain being outside its domain, but rather asserts that everything, which is, is inside its domain. And there it does not find vision. Vision, which exists without

color, is therefore unnameable in the domain of color, since the name of no color corresponds to it. But vision gives every color its name through distinction. Hence all denomination in the domain of color depends on vision, and yet we have discovered, that the name of Him, from whom all names exist, is nothing rather than something. Therefore, God is to everything, as sight is to the visible.

G: What you have said, pleases me. I understand clearly, that in the domain of all creatures, neither God nor His name is to be found. And that God escapes every conception, rather than be af-

firmed as something; since as something that does not possess the condition of a creature, He cannot be found in the domain of creatures. Also, one does not find the not-composed in the domain of the composed. And all names, which are named, are names of composition. However, the composed is not from itself, but rather from that, which precedes all composition. And, although the domain of the composed and everything composed are through this, that which they are, nevertheless since it is not composed, it is unknown in the domain of the composed. Therefore, may God, hidden from the eyes of all of the wise men of this world, be praised in eternity.

—translated by William F. Wertz, Jr.



Albrecht Dürer, Christ shows His disciples the signs in the heavens, 1503.

A Schiller Setting for the Mozart Year

We publish here, for the first time since 1820, a solo song by the composer-son of Wolfgang Amadeus Mozart. Franz Xaver Mozart was born two hundred years ago on July 29, 1791, six months before the untimely death of his father on Dec. 5, 1791. (For purposes of more closely following the German, we print here a literal English version.)

Besides marking the “Mozart Year,” another good reason to print this song is to testify to the powerful extension of Classical German culture throughout Central Europe. In particular, it is a fitting way to celebrate the independence of Ukraine, where the younger Mozart spent some 28 years of his musical career.

Franz Xaver Mozart, the sixth child of Wolfgang Amadeus and Constanze Mozart, and the younger of their two surviving sons, started to study piano in 1796. Among his teachers were Beethoven’s pupil Hummel and Antonio Salieri. His first compositions, including a piano quartet, appeared in 1802. In 1807 he went to Lemberg, now Lvov, in western Ukraine, where he worked first as a tutor, then as a music teacher, and became a freelance musician in 1813. It was during his extended concert tour throughout Western Europe in 1819-21, that he published “An Emma” in Hamburg. Afterward, he stayed in Lemberg (Lvov) until 1838, when he settled in Vienna. He died in 1844.

The more famous setting of this poem was composed by Franz Schubert in 1814, but not published until the 1820’s. It is unlikely that either composer knew the other’s version. The similarities are striking: Both used duple meter, and the key of F—

Schubert chose F major with a brief modulation into F minor and its relative major, A \flat ; F.X. Mozart chose F minor, modulating into F major to end in the same key as Schubert. Both composers began the song with a repeated low F in a dotted rhythm for the words, *Weit in*. Yet the versions are very different.

Schubert repeated the sad declaration that ends the second stanza (“Thou livest not of my love”) and ended, as Schiller did, with the query, “does it die like an earthly thing?” The voice’s last note hovers on the third, and the piano completes the piece wordlessly with the tonic, F, expressed as a long pedal-point in the bass, as if to imply that the answer is only in the depths of the soul. The song was printed as part of Op. 58 with “Hektors Abschied” and “Des Mädchens Klage,” settings of

two other Schiller poems.

Franz Xaver Mozart’s version, while not as brilliant as Schubert’s, has a rich, haunting quality. It is quite “operatic,” modulating through rapid key changes and mood changes (like the remarkable enharmonic shift to F \flat on the word *Pracht*—splendor), to declaim the final words of the poem, “does it die like an earthly thing?” with a rising fifth—the inflection of a question. But Mozart adds a coda in a new key (F major), a new meter (triple), and a new tempo (*allegretto moderato*). The coda brings back the words of the second stanza, to end with the hope, “thou wouldst be alive in my heart.” The tenor soloist closes on the F of the top of the middle register, after a bravura cadenza up to a high B \flat .

—Nora Hamerman

An Emma

Weit in nebelgrauer Ferne
Liegt mir das vergangne Glück,
Nur an *einem* schönen Sterne
Weilt mit Liebe noch der Blick.
Aber, wie des Sternes Pracht,
Ist es nur ein Schein der Nacht.

Deckte dir der lange Schlummer,
Dir der Tod die Augen zu,
Dich besäße doch mein Kummer,
Meinem Herzen lebtest du.
Aber ach! du lebst im Licht,
Meiner Liebe lebst du nicht.

Kann der Liebe süß Verlangen,
Emma, kann’s vergänglich sein?
Was dahin ist und vergangen,
Emma, kann’s die Liebe sein?
Ihrer Flamme Himmelsglut,
Stirbt sie wie ein irdisch Gut?

To Emma

Far in the misty-grey distance
Lies my past happiness;
Only on a beautiful star
Does my eye lovingly dwell;
But, just like the star’s splendor
It is but an apparition of the night.

If the long slumber of death
Ever covered thine eyes,
My cares would yet possess thee,
Thou wouldst be alive to my heart.
But oh! thou livest in the light,
Thou livest not of my love.

Can love’s sweet yearning, Emma,
Can it ever die?
What is gone and dead, Emma,
Can it really be love?
Its flame’s divine glow,
Does it die like an earthly thing?

An Emma

Friedrich Schiller

Franz Xaver Mozart
(c. 1820)

Andante con moto

Singstimme

Pianoforte

p Weit in ne - bel-grau - er *f* Fer - ne liegt mir das ver-gang-ne
Glück, nur an ei - nem schö - - nen Ster - ne weit mit Lie - be
noch mein Blick, a - ber wie des Ster - nes Pracht, ist es nur ein
Schein der Nacht. Deck - te dir der lan - ge Schlum - mer, dir der
Tod die Au - gen zu, dich be - sä - Be doch mein Kum - mer, mei - nem Her - zen leb - test du. A - ber

Allegretto non troppo

ach! du lebst im Licht, mei-ner Lie-be lebst du nicht. Kann der Lie-be süß ver-lan-gen, Em-ma,

Allegro agitato

accel - le - ran - do

kann's vergänglich sein? Was da - hin ist und ver - gangen, Emma, kann's die Lie-be sein? Ih-rer Flam - me Him - mels-

smor - zan - do

glut, stirbt sie, stirbt sie, wie ein ir - disch Gut? Deck-te

Allegretto moderato

dir der - lan - ge Schlum - mer, dir der Tod die Au - gen zu, dich be - sä - Be doch mein

Kum - mer, mei-nem Her - - zen leb - test du, mei - nem

rallentando a tempo

Andante

Her - zen leb-test du, leb - - - test - du, leb - - - test du.

Committee to Save the Children in Iraq Organizes Relief, Anti-Embargo Efforts

In a May 15, 1991 press conference in Bonn, Germany, members of the Committee to Save the Children in Iraq presented a Plan of Action which defined its commitment to intervene in Iraq on three levels: immediate relief and medical care for children; equipment to reactivate hospital facilities; and an economic development program for the entire region, as the basis for peace. The Committee also urged lifting of the embargo against Iraq, so that Iraq might generate revenues to purchase food, medicine, and the equipment needed to restore its basic infrastructure.

The first shipment of 20 tons of food, medicine, and medical equipment was sent on July 7 from Frankfurt, Germany to Habbaniyah Airport, outside Baghdad. This was followed by similar shipments on July 26 and Aug. 5, carrying 3.5 and 2.5 tons, respectively. Returning flights to Frankfurt on July 9 and July 30 transported delegation members as well as 22 Iraqi children, casualties of the war. These children were placed in hospitals throughout Germany, through the efforts of the German Hammer-Forum, where they received medical and surgical care not available in Iraq at that time.

- On Aug. 8, members of the Committee presented the results of the first trip to Iraq in a Bonn press conference.

- On Aug. 13, Warren Hamerman, delegate for the International Progress Organization, made a presentation to the Commission on Human Rights at the United Nations in Geneva, in which he charged that the ongoing embargo policy of the Security Council constituted a violation of the most fundamental rights of the Iraqi people, particularly its children.

- On Sept. 23, Mr. Francis Boyle, a professor of international law at the



Iraqi children protest the embargo.

University of Illinois, arranged to have an Indictment, Complaint, and Petition submitted to the U.N. General Assembly, charging President George Bush and the U.S. government with the crime of genocide against the 4.5 million children of Iraq. Professor Boyle is a member of the Committee.

- On Oct. 1, twenty American dairy farmers from eight states began a movement to save children in Iraq from starvation, by purchasing milk powder for distribution there to orphanages, children's hospitals, and needy families. The farmers aimed to dramatize the fact that children

around the world will not be saved from the deadly consequences of current food control policies, without saving the independent dairy farmer in America. As of November, five tons of milk packed in crates marked "Gift from American dairy farmers to Iraqi children" had arrived in Baghdad. The relief effort is being facilitated by the Committee.

- At a Nov. 18 press conference held in the Baghdad office of the Red Crescent Society, spokesmen for the Committee announced the delivery of 16.5 tons of relief goods to Iraq, organized by the Letter of James-Food for Peace

and several Swedish organizations. The shipment included 48 hospital beds, 10 operating tables, 67 wheel chairs, 8,000 syringes, and other medical supplies.

Legislative Actions

Although efforts to lift the embargo of Iraq have not been successful thus far, in June two legislative actions were undertaken at the instigation of the Committee, one in the U.S. Congress and one in the Swiss Federal Council. On June 24, Rep. Henry Gonzalez (D-Tex.) introduced House Resolution 180, "expressing the sense of the House of Representatives that the United States should act on an emergency basis to lift the economic embargo of Iraq." In Switzerland, Swiss parliamentarian Massimo Pini, a member of the Committee, introduced a parliamentary inquiry, asking "Whether the Federal Council does not believe the time is ripe to propose lifting the embargo against Iraq, as far as economic measures are concerned."

Leading members of the Committee include: **His Beatitude Rafael I Bidawid**, Patriarch of the Chaldean Church of Babylon; **Helga Zepp-LaRouche**, president of the Schiller Institute, Germany; **Prof. Dr. Hans Koehler**, president of the International Progress Organization, Vienna; **Amelia Robinson**, civil rights leader, U.S.A.; **Massimo Pini**, Member of Parliament, Switzerland; **Dr. Reza Sabri-Tabrizi**, Edinburgh University; **Michael Hare-Duke**, bishop of St. Andrews, Scotland; **Prof. Michael Dummett**, Oxford University; **Prof. John Bell**, Leeds University; **Prof. Francis Boyle**, University of Illinois; **Monsignor Paul O'Byrne**, bishop of Calgary, Canada; and **Monsignor Crowley**, auxiliary bishop of Montreal.

For more information or to support the Committee's efforts, please write to its U.S. coordinator:

Nancy B. Spannaus
Committee to Save
the Children in Iraq
c/o Schiller Institute, Inc.
P.O. Box 66082
Washington, D.C. 20035-6082

Call For a True Fourth U.N. Development Decade

On September 12, 1991 the Schiller Institute submitted a discussion paper for the 46th Regular Session of the U.N. General Assembly entitled: "For a True Fourth U.N. Development Decade: A Concrete Solution to the World Economic Breakdown Crisis."

The proposal points out that as the Fourth U.N. Development Decade officially began in 1991, the vast majority of people on earth live in total misery as a result of the ongoing breakdown of the international monetary system. Thus, despite the welcome demise of communism in Eastern Europe and the former Soviet Union, the basic economic conditions of man globally, particularly in the Third World, are increasingly unbearable. Moreover, after three previous U.N. Development Decades, the greatest part of mankind today lies in fear of repression without the inalienable rights, dignity, and securities appropriate to all men as the sacred children of God.

As an alternative to the genocidal dictates of the New World Order espoused by the Bush administration and others in the aftermath of the Gulf War, the Institute proposes a New, Just World Economic Development Order based upon a community of principle among sovereign nation states. In order to achieve this objective, it is necessary to recognize that the Bretton Woods system set up after World War II is shattered, and must be replaced by a new gold reserve (not gold standard) monetary system, which will generate new long-term, low-interest credit for productive investment in large-scale development projects. The establishment of this new institution, the paper proposes, ought to be the natural outcome of an immediate Preparatory Meeting with the mandate to:

- establish a coordinating commit-

tee for large-scale regional development projects throughout the world;

- launch an emergency global effort to halt the spread of deadly pandemics and famine by producing the means to raise the standard of living of all people; and

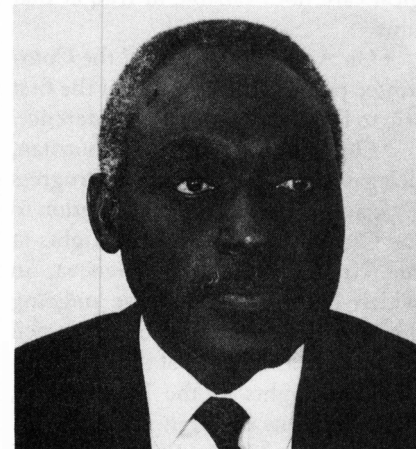
- establish the basis of issuing long-term, low-interest loans for development and currency stability based upon such a new hard credit system.

Moreover, in contrast to the current policies of the International Monetary Fund and World Bank, which disregard national sovereignty and give higher priority to debt collection than to the well-being of the people of the nations subjected to their dictates, the mandate of this Preparatory Meeting shall be strictly controlled by three limiting principles:

- 1) protection of national sovereignty;
- 2) a definitive end to usury and slavery;
- 3) a recognition that health and physical well-being are inalienable rights of man.

Previous Failures

The paper suggests that the reasons the first three Development Decades failed are: 1) The world financial insti-



Dr. Awoonor, Group of 77 head.

UN Photo 176142/M. Grant

tutions did not establish their policies with democratic representation among the vast majority of nations, but were established before the post-World War II breakup of empires and therefore reflect neo-colonialist biases in their structure and policies; and 2) These same institutions, in order to preserve a bankrupt financial system and the political power of certain ruling elites, have consciously adopted a racial, Malthusian, genocidal policy of reducing the population and preventing the economic development of those Third World nations perceived as a threat to the established order.

In order to initiate the Fourth Development Decade, the paper proposes that the planned Earth Day Summit—Eco 92—in Brazil be postponed and that the Preparatory Meeting for the Fourth Development Decade occur in its stead. The proposed coordinating Committee for Regional Development Projects is encouraged to begin its deliberations with consideration of several development proposals developed by Lyndon LaRouche and his collaborators over the past two decades:

- The creation of a **Productive Triangle between Berlin, Vienna and Paris**, which, through the construction of high-speed rail lines between these points and radiating beyond, could become the engine for developing eastern Europe and the rest of the world;

- An **Oasis Plan for the Middle East**, to green the desert through large scale water purification and irrigation projects;

- Such **Great Projects for Africa** as a trans-African East-West railway, and major water development projects to green the Sahara;

- The **Ibero-American Integration Plan**, including a second Panama Canal and an East-West railway across the continent through Brazil, Bolivia and Peru;

- **Infrastructure projects for Asia**, including the Mekong River development project, the construction of the Kra Canal and the Ganges-Brahmaputra water management project;

- **Vast programs of urban, agricultural, and industrial infrastructural revitalization in the United States**, in-

cluding the North American Water and Power Alliance (NAWAPA) plan for water and power development.

This development-project orientation also includes the construction of new cities to be built around nuclear-powered industrial complexes (nuplexes), the colonization of Mars, and the development of fusion energy on a crash basis.

In contradistinction to the consequences of the Bush Administration's New World Order, this proposal for a true Fourth Development Decade is consistent with the principles enshrined in all the major international declarations adopted by the U.N. General Assembly since its founding after World War II.

Response to the Schiller Institute's proposal from the developing sector nations has been positive. In an interview conducted on Oct. 22, 1991, Dr. Kofi Nyidevu Awoonor, who is the Ambassador and Permanent Representative of Ghana to the U.N. and who is also chairman of the Group of 77, which represents the more than 100 developing sector nations, made the following comment on the proposal: "I think it is a brilliant document of immense originality. It takes a lot of courage for anybody from the developed part of the world, the advanced part of the world to see the problem in that global perspective."

The full text of this proposal can be obtained from the Institute.



Warren Hamerman presents LaRouche case to U.N. Geneva commission.

Crimes Against LaRouche Aired At United Nations Commission

On Aug. 9, 1991 Warren Hamerman, speaking on behalf of the Vienna-based International Progress Organization (I.P.O.), presented details of the case of discrimination against U.S. political leader Lyndon H. LaRouche, Jr., and his associates in the United States, to the United Nations Organization Subcommittee on Prevention of Discrimination and Protection of Minorities.

In his presentation, Mr. Hamerman stressed that "major human rights violations are now ongoing in the *United*

States against the freedom of thought and conscience. . . . These abuses are occurring solely for the reason that certain beliefs have been targeted by the government and power structures as politically 'not correct'. . . . In particular instances where the beliefs champion the rights of developing sector populations, beliefs which are out-of-step with the prevailing policy of an imposed world order, the proponents of these beliefs have been singled out for special persecution.

"The premier instance of U.S. gov-

ernment persecution for purely philosophical beliefs centered around championing the rights of the developing sector . . . is the complex of cases involving the American political prisoner Lyndon H. LaRouche, Jr., whose case has been referred to by one of Europe's most distinguished authorities on international law as 'The American Dreyfus Affair.'

According to Hamerman, LaRouche, who has been a political prisoner for three years, was imprisoned virtually simultaneously with the inauguration of President George Bush, his longstanding political adversary. The nearly 70-year-old LaRouche is serving a 15-year sentence with the earliest release date coming between mid-1997 and 1999. Thus, he has been given an effective *slow death sentence*.

"Over the past five years, fifty leaders of the LaRouche political movement across the United States have been indicted, of whom eighteen have been convicted in trials which are in violation of international fair trial standards, and eleven were jailed. As with LaRouche himself, many of his leading associates were given excessive sentences out of all proportion to the alleged crime. In a series of related prosecutions in the state of Virginia, for instance, four men and one woman—all in their mid-40's—were given sentences of 77 years, 39 years, 38 years, 34 years, and 25 years, respectively."

Forced Bankruptcy

Hamerman also reported that five companies which published writings or expressed beliefs associated with LaRouche were indicted. A nationally distributed newspaper with a circulation of more than 150,000 copies per issue (*New Solidarity*) was shut down by the government in 1987. An internationally respected scientific magazine, journal, and association (the *Fusion Energy Foundation*), with an American subscribers list of 100,000 alone, had its offices padlocked and its periodicals banned by the government four years ago. Two companies (*Campaigner Publications* and *Caucus Distributors, Inc.*), which published and

circulated millions of copies of leaflets, pamphlets, and books promoting Third World development among Americans, had their offices seized, their presses stopped, and their stocks of literature confiscated through a government decree known as a "forced bankruptcy"—the first occasion in U.S. history that the government utilized this mechanism against publishing and political entities! Furthermore, in the same time period, the government forced a free political action committee (the *National Democratic Policy Committee*) to cease functioning, by imposing a draconian fine of \$5 million on the small committee—an economic death sentence. One individual who contributed a substantial amount of money to promote LaRouche's beliefs—Lewis du Pont Smith—was dragged into court, found to be mentally incompetent for holding those beliefs, and barred by court order from controlling his own finances or even marrying.

Hamerman continued, "In his trial, LaRouche and his associates were convicted of state-created 'economic crimes' which the government itself had manufactured. . . . First, the government shut down the publishing firms through the unprecedented 'involuntary bankruptcy.' Then, they turned around and convicted LaRouche of failing to repay the debts of the out-of-existence companies, as well as hiding information from the government's Internal Revenue Service for the same unpayable money. Ten months *after* LaRouche was locked away in prison, the 'forced bankruptcy' action by the government was found by an independent court headed by one of the most prominent bankruptcy judges in the country to be (1) an *illegal* action; (2) done in '*bad faith*' by the government; and (3) obtained by the government doing a '*constructive fraud on the court.*'"

Population and National Security

In his testimony, Hamerman cited three of LaRouche's beliefs which he has struggled to introduce into the political arena:

- LaRouche's promotion of science,

technology, and physical economic progress for the developing nations.

- LaRouche's opposition to the "demographic political warfare," or "Malthusian genocide," to use a more direct term, which has been waged against the Third World.

- LaRouche's opposition to the proliferation of the counterculture, and his promotion instead of a revival of classical culture which celebrates the sacred dignity of all men and women as equally the children of God.

In this context, Hamerman reported that, "Over the past few years, the U.S. government has declassified a series of National Security memoranda from the 1974-77 period, in which the U.S. government declared the movement for a New World Economic Order as a 'national security' threat to the United States.

"The critical document is National Security Study Memorandum 200, 'The Implications of Worldwide Population Growth for U.S. Security an Overseas Interest,' which was written in 1974 by National Security Advisers Henry Kissinger and Brent Scowcroft.

"One of the major concerns of NSSM 200 was to check the spread of beliefs which encouraged a New World Economic Order with increasing population growth in the Third World. The document cites thirteen 'key countries' in which there is a special U.S. 'strategic interest' in imposing population control and diminishing economic expectations.

"Two years after NSSM 200 was written, in May 1976, the National Security Council of the United States released a related memorandum reporting on progress. This report was forwarded to then-CIA director George Bush. This report, recently declassified, stated that it was in U.S. national security interests to eradicate 'wishful thinking that economic development will solve' the problems in the developing sector."

Hamerman concluded that it is precisely his opposition to George Bush's New World Order which is at the center of the major human rights violations against Mr. LaRouche and his political movement.

Interview: Croatian Organist Ljerka Ocic-Turkulin

Ljerka Ocic-Turkulin, a Croatian, is Yugoslavia's leading classical organist, who came to America from her native city of Zagreb (the capital of Croatia), as a member of the Croatian Art Forces, to win support for Croatia's independence struggle against Serbia. She gave concerts in Florida and Maryland, playing both classical pieces and Croatian compositions, concluding with an appeal for the United States to recognize Croatia's independence.

Ocic-Turkulin was born in Zagreb, Yugoslavia in 1960, where her family has lived for six hundred years. She graduated in 1982 from the Academy of Music in Ljubljana, where she studied organ under Prof. Hubert Bergant. Later, she studied in Paris, Kiev, and Rome. She has given concerts in Europe, Japan, and Russia. This is her second trip to America.

Her husband, Hrvole Turkulin, is a professor of forestry at Zagreb University. He recently returned from a scholarship in London to join the reserves in defense of Croatia.

The interview was conducted for Fidelio by Marianna Wertz, vice-president of the Schiller Institute, on Sunday, Nov. 24, 1991.

* * *

Fidelio: The Schiller Institute has issued a Call to Found an International Committee to Save Croatia, calling on Western nations to recognize the independence of Croatia and Slovenia. What is your view of the American role in Croatia's struggle, and what are you seeking from the West?

LO: We need recognition of our independence. We also ask for concrete support, like troops; or just not to have the embargo anymore. Because it is actually a battle between David and Goliath, and we don't have equipment and weapons to defend ourselves.

Fidelio: Do you know that the media

in the U.S. say this is a civil war?

LO: I don't think it's either a civil war or an ethnic war, in that sense. Actually it's a battle between a communistic system and democracy. Therefore, we expect the support of Europe and the rest of the west.

Fidelio: In an interview with the Baltimore Sun, you mentioned atrocities committed against Croatians by the Serbian-controlled Federal Army. Can you say something about this?

LO: All the other nationalities have left the Federal Army, so now it's just a Serbian army. They are attacking all around. They are trying to destroy everything. The main targets are churches, monuments, schools, and kindergartens. They have destroyed almost two hundred churches.

Destroying a Cultural Identity

Fidelio: Why target churches?

LO: The main thing that they proclaim is that wherever one Serb lives, that is Serbia. They want to destroy our cultural identity.

Fidelio: Is that why you decided, as a musician, to use your talents to try to defeat them?

LO: Yes. We are trying to fight in our way, because we have a culture, we have a tradition, and we have to preserve our art, our treasure in that sense.

I, as a musician, didn't know how to behave in such terrible circumstances and I felt very *unuseful*, so I joined the Croatian Art Forces and we try to fight in our way. That means we are organizing concerts all around. We had some concerts during the battles in Osijek, in a cathedral which had been attacked before. The symphony orchestra went there and they performed the Beethoven Eroica Symphony.

I'm going to play also in that cathe-



EIRNS/David McVey

Ljerka Ocic-Turkulin.

dral on my way back. We are trying to do such things to support the morale of the people there, and we think that nobody can destroy the whole nation. Somebody will survive, and they will be witnesses for future generations.

Fidelio: How has the response been to your concerts in America?

LO: So far, I've had concerts in Florida, and I spoke each time at the end of the concert. I think the American people can understand what's going on. I think a lot of disinformation is going around, because Serbia has built a very strong lobby here in the past seventy years.

Fidelio: They have Deputy Secretary of State Lawrence Eagleburger.

LO: They also have Helen Bentley (R-Md). She proclaims herself a Chetnik—she's proud of it. It's very hard to fight against such a thing, because Croatians haven't had a chance to speak freely in the past.

Fidelio: Are you speaking freely in your concerts?

LO: Yes, I'm trying. But even the churches where I'm playing in Baltimore, had threatening phone calls, saying they were Serbians and demanding to know how the church could give the opportunity to somebody from Croatia—who is killing children and such things—to give a concert here.

Lessons of the Art of 1492

Fidelio: That story was untrue, and Reuters News Service retracted it.

LO: Yes, I was sure that it was untrue and I spoke about that all over. But, unfortunately, some people had already read or heard that, and it's tough to counter it.

Culture and Politics In a Time of Crisis

Fidelio: In Lithuania, Vytautas Landsbergis is head of state and he's a musician. In Czechoslovakia, Vaclav Havel is president, and he's a playwright. How do you see this growing trend of newly freed nations in Eastern Europe calling on cultural figures to give political leadership in this time of crisis?

LO: It's amazing, because under the communist system, musicians and artists were in a terrible position. Writers couldn't express their feelings, their fears, the experiences that they had under the communist system, so a lot of them, in our country, were jailed, just because of their opinions. It's hard for me to express this in English, but [voting for cultural figures] is a way to express the free spirit that was preserved in the circumstances we passed through.

Fidelio: What program have you chosen for your concerts here?

LO: It depends always on the organ. In Florida, I included one of the Croatian composers, and I played one elegy, a very sad composition, because my mood was sad. It was full of folk elements of our country. I also played Romantic and Baroque music.

Here in Baltimore, because of the type of organ, I played Baroque music, but always at the end of the concert I played a piece from the St. Matthew Passion of J.S. Bach, in memory of all the children and civilians who have been killed in the war.

Fidelio: I'm sure that's had a good effect on people.

LO: I think so. I hope that in this kind of expression, a musical kind, people can understand much more about our feelings, and can share them with us. We are grateful for every move that you make here in America.

In celebration of the Quincentary of the Discovery of America by Columbus, the National Gallery of Art mounted a glorious exhibit entitled "Circa 1492: Art in the Age of Exploration" this past autumn. Although not about history as such, this exhibit of over 600 objects from the Mediterranean world, east Asia, and the Americas in the half-century around 1492, provided the crucial clue for evaluating not only the past but where we are going today. The clue is the necessity of progress. Therein, we find beauty.

Although the exhibit, on view only in Washington from Oct. 12, 1991 to Jan. 12, 1992, has now closed, several hundred thousand visitors took advantage of this once-in-a-lifetime opportunity. A handsome 672-page catalogue published by Yale University Press and the National Gallery (\$45 paper, \$59.95 hardbound) remains.

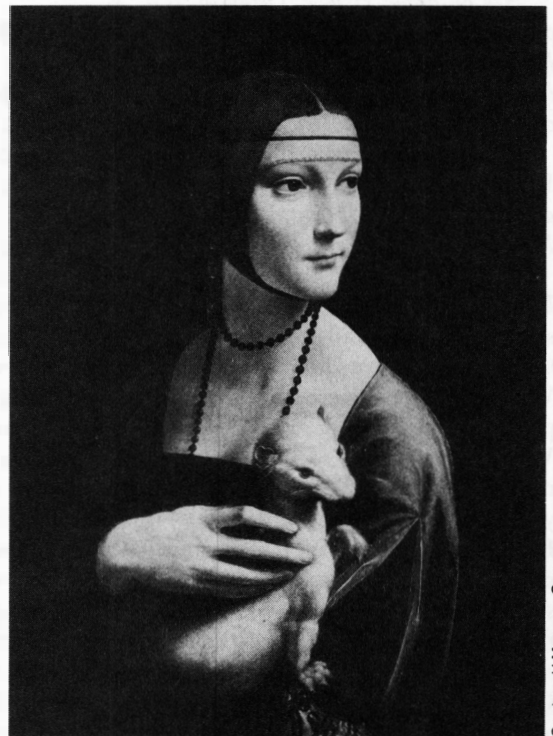
The Italian Renaissance of the fifteenth century, which unified art and science as never before, was the response of Western Christendom to the terrifying challenge of uncontrolled nature—in this case, epidemic disease, the Black Death, which wiped out as much as fifty per cent of the urban population in many parts of Europe, including the proud city of Florence, Europe's banking capital, in 1348.

In the decades leading up to 1492, theoretical and applied science were brought together in a republican political movement which gave birth to momentous breakthroughs in technology:

the discovery of perspective in painting, the development of anatomy as a science, a revolution in navigation, the invention of printing, revolutions in mapmaking and astronomy. The art of not only Leonardo da Vinci and Albrecht Dürer, who were both thriving artists in 1492 and whose works crown the exhibit's first, European section, but of many other geniuses on display here—Piero della Francesca, Botticelli, Uccello, Donatello, Brunelleschi, Pollaiuolo, even Michelangelo—celebrated the creative power of the unique individual to make such discoveries, and the willingness of political leaders to organize society so as to realize these inventions to change the physical world.

Renaissance Image of Man

We see that celebration of the individ-



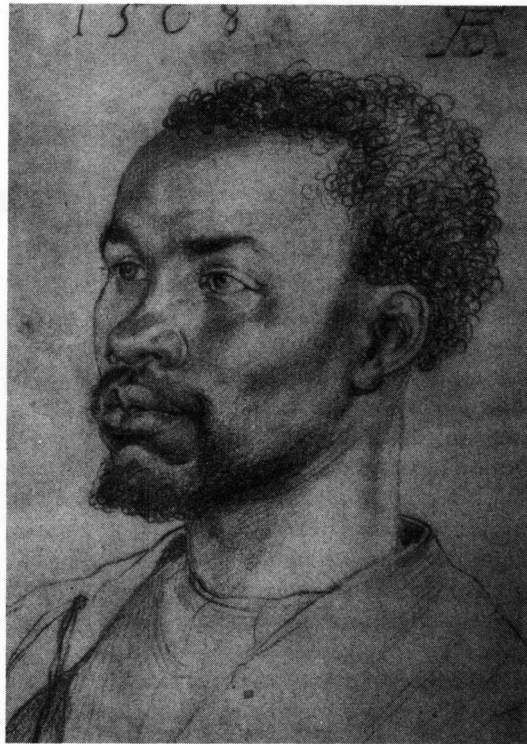
Leonardo da Vinci, Portrait of a Lady with an Ermine (Cecilia Gallerani), c. 1490.

ual's potential in the portraits by Dürer and Leonardo in the show, especially the enticing "Cecilia Gallerani," one of only three authentic da Vinci portraits in the world, lent by the museum in Cracow. (Not only are the majority of the portraits commoners, but they are "mere" *women*, which indicates the universality of the Renaissance image of man.) But it is also synthesized in Botticelli's portrait-like St. Augustine, the African-born father of European civilization, who is depicted as a typical humanist scholar of the fifteenth century receiving a divine illumination through the medium of an armillary sphere, an instrument for charting the course of the stars!

Thus it was, that by 1500 Italy had recovered the population lost through the bubonic plagues of the previous century. This was the quality of ideas—however incompletely they were understood and applied by some—behind the evangelization of the Americas.

The discoverers included the Florentine Amerigo Vespucci, whose family commissioned Botticelli's "St. Augustine" less than two decades before he landed on the shores of South America in 1497, and the great Spaniards Magellan, de Soto, Cabral, Cortés, Balboa, and others whose names ought to be known to every American. Splendid examples of the maps and scientific instruments that accompanied their progress are a focus of the exhibit, many of them coming from Dürer's home town of Nuremberg, the Florence of the North.

Two great urban centers of the Renaissance—The Netherlands and Italy—contributed to the artistic production of the Spain of Ferdinand and Isabella, which sponsored Columbus' voyage in 1492. These great schools of art were deliberately re-exported, with



Albrecht Dürer, Portrait of a Black Man, c. 1505-1506?

Graphische Sammlung Albertina, Vienna

uniquely Iberian ingredients which had been added in the process, into Mexico, Peru, and the other American colonies, becoming the basis for beautiful cities built by indigenous craftsmen, and magnificent polyphonic choirs made up of Indian musicians, in the century after 1492.

Culture Shock

The second part of the show, "Toward Cathay," shows the "Indies" Columbus expected to find by sailing west to reach the east: Japan, then Korea, China, and finally India, through the art that was produced in each of these countries around 1492. Sophisticated; delicate or voluptuous; impressive or subtle; this art shows technical mastery, yet lacks the notion of the unique individual which was the motor of progress in the West. Indeed, in the 1430s, the Chinese imperial court decreed the burning of the fleet of Admiral Zheng He, whose voyages of exploration had been more advanced than the pioneering navigation efforts of the Europeans at that time. China turned its back on progress.

In the third part, "The Americas," we experience the culture shock the Europeans underwent in their first encounters with indigenous societies. Even more than the art, which consists of many crouching hulks of stone, menacing faces, human beings disguised as animals, and skeletons sporting knives for noses and tongues, the catalogue entries are a grim indictment of a culture which had lost the moral fitness to survive. Every one of the religions which ruled daily life in the Caribbean, Mesoamerican, and Andean regions, as well as the "lands of gold" which lay between the Aztec and Inka empires from Costa Rica to Colombia, was based on the ingestion of hallucinogens to produce "messages" from their gods.

On display from the islands where Columbus first landed, are platforms for sniffing narcotic powder, vomiting spatulas for purging the stomach before trances, and gods in the forms of animal-human transformations, as the drugs they ingested blurred the boundaries between man and beast. In these societies, there was no hint of scientific progress, nor did their "gods" inspire it. Instead, they practiced human sacrifice to keep the universe running—the extremes to which the Aztecs went are notorious—along with slavery, polygamy, and constant warfare.

Five hundred years before Columbus landed, the human-sacrificing empire of the Mayas had become extinct because it could not deal with epidemic disease, probably yellow fever. The same fate was destined to overtake the Aztecs and Inkas, with or without the arrival of outsiders. Indeed, the doom of the Mayas, a more developed society than the Aztecs, compels us to consider that only through the evangelization were the lives of the indigenous Americans saved after 1492.

A Vicious Dualism

The lesson of the exhibit is clear; the European part shows the celebration of life which became the most positive part of American civilization, enabling Americans to create new freedoms to

combat the grip of the oligarchy in the Old World; the pre-Columbian part is a culture of hopeless brutality and death, only occasionally alleviated by what seems to be humor.

Yet strangely, some of the organizers of the show have drawn the opposite conclusion. No less a pundit than Librarian of Congress Emeritus Daniel Boorstin, in his preface to the catalogue, calls "Circa 1492" an "antidote to the contagion of science." He concocts a dualistic universe in which Man the Discoverer is seen as disparate from (though sometimes complementary to) Man the Creator. In Boorstin's view, Man the Discoverer operates collaboratively in a universal task of pushing back the frontiers of the unknown, but Man the Creator operates alone, as an individual, in the realm of "art" where there is no valid concept of progress. This is the view that Leonardo da Vinci and Dürer fought all their lives!

Moreover, Boorstin, in his domain of Creation divorced from technology and necessity, assumes a "freedom" for diversity and creativity that no Aztec artist could have even imagined. For instance, Aztec musicians, although highly regarded in society, were obliged to play by memory through long religious rituals; the lapse of playing a single drumbeat out of sequence was deemed so displeasing to the deities that it was punished by death. So what is Mr. Boorstin talking about?

He is, in fact, extolling a vicious dualism, the dualism which in another essay in the catalogue, we learn was the essence of the religion of the Aztecs. Every "god" had its twin; the benign and fertile was countered by the hideously destructive.

Boorstin's crazy, ahistorical idea of artistic "freedom," a freedom never available to Aztec (nor, I believe, even to Chinese) artists, leads us down the path of menticide, through today's rock-drug-sex counterculture, and to genocide, through today's predominant economic policies of looting and enslavement.

The exhibit itself told a different story. Thank God.

—Nora Hamerman

BOOKS

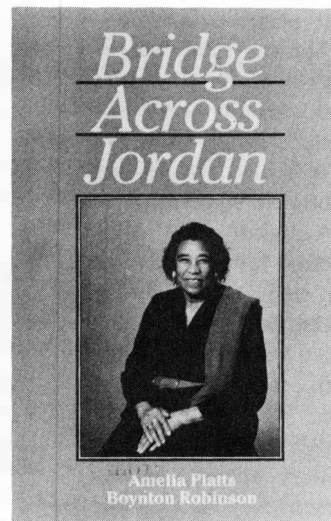
'And what the innermost voice conveys, The hoping spirit ne'er that betrays'

Bridge Across Jordan permits one a glimpse into the fashioning of true heroism and individual greatness. It is the unfolding history of a black American, Amelia Platts Boynton Robinson, working to realize the promise of a nation to "hold these truths to be self-evident: that all men are created equal and are endowed by their Creator with certain inalienable rights."

This is not a book written by a black woman for black people! Rather it is a book which challenges America and all humanity to recover the will to advance the human dignity of all in the years and decades to come. *Bridge Across Jordan* induces the reader to reflect upon *how* one finds the spirit to conquer apathy, to battle injustice through direct non-violent resistance, and to wield truth as the shocking remedy for bigotry and ignorance, yet retain humility.

Nor is this a book of sentimental reminiscences upon events of the 1960's movement for civil rights! It is more a social history, an American life spanning most of the twentieth century, faithfully chronicled by an individual of extraordinary personal integrity. It is rather a universal testament to the human spirit's ability to face blatant opposition to human freedom, and to cut a path of hope through the wilderness of ignorance and cruelty while realizing the joy and purpose of a personal life worth living for all time.

In her autobiographical work, Mrs. Robinson brings the reader face-to-face with the personal challenge of disarming bigotry and hatred with the sword of non-violent resistance. She conveys how racial oppression affects *real people*, as if they were the reader's own family. She examines the stark reality of a segment of the American population largely unknown to "mainstream" America. The realization of



Bridge Across Jordan
by Amelia Boynton Robinson
Schiller Institute, Inc.,
Washington, D.C., 1991
414 pages, paperback, \$10.00

America's historic purpose among nations is shown to be inexorably intertwined with achieving the freedom and dignity of every single American.

The Christian cultural values inherent in the inspiring, steadfast nature of Mrs. Robinson's life, and the endeavors for which she and her husband, Samuel William Boynton, worked, were reaffirmed, as well, by the life of Dr. Martin Luther King, Jr. and his movement. "Dr. King gave the world the concept of *agapē* as a political principle," states Mrs. Robinson in her book.

Today, as a leader of the Schiller Institute, Mrs. Robinson enriches the quality of that movement by unifying the worldwide resistance to tyranny and injustice, the centuries-long fight by black Americans for human dignity and unfulfilled aspirations of the global republican movement which created the United States.

Amelia Platts was born in 1911 at Savannah, Georgia. The love shared by her parents, George G. and Anna E. (Hicks) Platts, radiated in the care and education they provided to their nine children. They also possessed a deep respect and high esteem for the family-oriented community in which they lived.

Through such family-oriented values flows the impetus for responsible citizenship: “[W]e felt that we had to be leaders, because this is what the community expected,” recalls Mrs. Robinson. Her mother’s political activity strengthened the child’s respect for this concept: “I clearly remember going about with mother in her horse and buggy in the city of Savannah in 1921, when I was ten years old. My induction into politics was knocking on doors and ringing doorbells, giving women the proper information, taking them to the polls to cast their votes. From the earliest time I can remember, I tried to follow in my mother’s footsteps.”

When the time arrived for the young woman to venture away from the “Platts-nest,” to assume direct responsibility for her life, Amelia Platts studied at a host of local colleges, then left Georgia to attend Tuskegee (Institute) University in Alabama.

The motto of Tuskegee’s founder, Dr. Booker T. Washington—“Cast down your bucket where you are, in making friends of all races by whom we are surrounded”—left a lasting impression in Amelia’s mind. According to her, this motto also “heavily influenced Dr. Martin Luther King, Jr. and his movement.” She explains that, “[m]any have interpreted this to mean that one should not run from his land of birth looking elsewhere for something better, just dig a little deeper.”

Upon graduating from Tuskegee, perhaps it was the echo of Dr. Washington’s motto which caused Amelia Platts to return to her native state, Georgia. After all, it was hardly an attractive job to work for the U.S. Dept. of Agriculture, teaching in an overcrowded rural school for a meager \$50 per month. And what was she to gain by publicly exposing the injustice

and underhanded treatment suffered by the school’s students? She lost her job, but grew in stature from the experience.

Sometime during 1930, Amelia Platts returned to Alabama. She was to remain in Selma nearly fifty years, working as an extension agent visiting rural homes, sacrificing her own financial, social, and emotional comfort to serve her fellow man. She was soon to marry Samuel William Boynton, the county extension agent. Bill Boynton sought to make extension work the stepping stone by which each impoverished sharecropper might enter the world of scientific agriculture and cross over into economic independence, breaking with the distorted, “white is right” slave mentality.

Risking Everything

At a time when ignorance and impoverishment were the rule for thousands of rural southern blacks, why should two well-educated blacks, with “good U.S. government jobs,” think it their duty to change this status quo at their own risk, since the dominant social structure violently opposed black improvement? Extension work meant lugging heavy agriculture equipment, sometimes miles, over wagon roads, ditches, and unattended fields, during each season of the year, just to reach the “quarters” of blacks living behind the plantations. Were not the Boyntons already “giving their fair share” to humanity through extension work? Why should they now “rock the boat,” by encouraging blacks to register to vote, and work to buy the farms on which they labored? Moreover, why should they risk having their lives snuffed-out by feudal Alabama’s inhuman “Simon Legrees,” who killed blacks merely “for the heck of it,” for the sport of doing so? Why?

Would that each of us were to assimilate the Boyntons’ love of truth and justice, for neither succumbed to adopting the mirror-image bigotry of their white oppressors; nor were they unhappy to raise a family in the course of many trials and tribulations. In *Bridge Across Jordan*, Mrs. Robinson attributes Bill Boynton’s admonition

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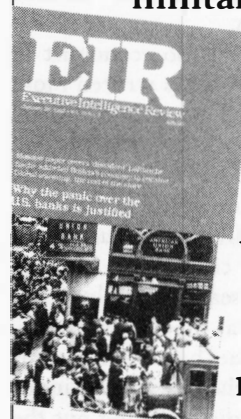
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to her, "Hatred is the one thing that hurts the hater, not the hated," with having caused a turning point in her life, and later, with having enabled her to soar above bitterness and conquer all fear.

Through examining Mrs. Robinson's account, one will discover that the civil rights movement—the cause for which Mrs. Robinson risked her life, for which Samuel William Boynton and Dr. Martin Luther King, Jr.

gave their lives—was not merely for blacks, nor was it an "anti-American" phenomenon of the 1960s. What becomes clear, in this book, is that this movement's lessons offer the unique opportunity for every American, and our nation as well, to recover their human dignity.

Truth, and economic and social justice, can only be attained through wielding the tempered sword of direct non-violent resistance, which ennoble

the oppressed and disarms the prejudice and cruelty of the oppressor, such that each may become more capable of actualizing his or her God-given potential.

*"They drew a circle and left us out,
Heretic rebel, a thing to flout,
But Love and I had a way to win,
We drew a circle, and took them in."*
from *Bridge Across Jordan*.
—Cloret Carl

Studying Economics in a Time of Crisis

Lyndon LaRouche has devoted more than twenty years to trying to teach the principles of physical economy to the world's population, especially his fellow Americans. *The Science of Christian Economy* is his seventh explicitly economic text, and it comes at what could only be described as "one minute to midnight" in the crisis of world civilization.

In its preprinted version, appearing in the *Executive Intelligence Review* of June 7, 1991 (Vol. 18, No. 22), the book has already circulated widely. Responses have been varied, including questions as to "why Christian economics" and as to why the book does not feature the "how to" formulas which would reverse the current world depression.

I suspect there is no economist in the present era who has written more extensively as to what needs to be done to overhaul the world financial system, and restart the world economy to the benefit of the entire world population, than Lyndon LaRouche. During recent presidential campaigns, Mr. LaRouche has presented detailed prescriptions for what the necessary U.S. government policies had to be. In addition, Mr. LaRouche has written innumerable area-studies, spelling out the ways to rescue the continents of Asia, Europe, Africa, and Ibero-America from the horrendous effects of current international financial policies.

For the most part, these prescriptions stand up today, with adjustments being required primarily because of the irredeemable bankruptcy of the

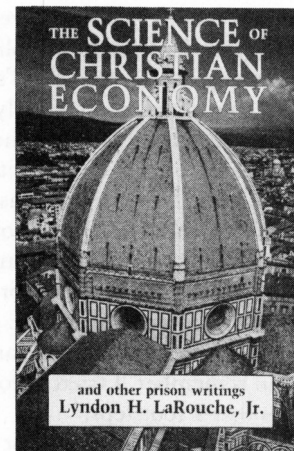
Anglo-American banking system. Yet, the availability of such wisdom has not been utilized by the world's leaders, and the hundreds of constituency leaders who recognize the correctness of LaRouche's program, remain relatively isolated, and have not found ways to act effectively to implement it.

Mr. LaRouche has therefore undertaken to present the fundamental method behind his popular programmatic approach, the philosophical method which generates the axioms on which a successful physical economy must be based.

Christian Economics

It should surprise few that LaRouche locates the foundation for his economics as Christian. In his 1984 text, where he first elaborated in depth the concept of *potential relative population density*, LaRouche identified the scientific truth behind Genesis 1:28, that man should be fruitful and multiply and dominate the earth. On this explicit concept was founded the school of "cameralism" in the sixteenth century, which identified human labor power as the principal source of wealth in an economy, and argued for a positive governmental role in fostering this wealth.

In *The Science of Christian Economy*, LaRouche explores the Christian philosophical roots of an effective economic method in even more depth, utilizing the concepts of Thomas Aquinas, Nicolaus of Cusa, and, especially, the German scientist and philosopher Gottfried Wilhelm Leibniz.



**The Science of
Christian Economy
and Other Prison Writings**
by Lyndon H. LaRouche, Jr.
Schiller Institute, Inc.
Washington, D.C., 1991
500 pages, paperback, \$15.00

While noting that he is taking an ecumenical approach, LaRouche locates the basis for that ecumenicism in the Christian concepts of *agapē* and of man as *imago viva Dei*, the living image of God. That quality of man is what permits the individual, as a sovereign creative personality, to produce the concepts to act on the physical universe in such a way as to provide for the successful reproduction of mankind as a whole.

LaRouche, who has identified himself as the leading representative of the American System today, also emphasizes that, while the American System of Political Economy, as developed especially by the U.S.'s first Treasury Secretary Alexander Hamilton, is the best proximate model for an effective physical economic system—since it

waged a periodically effective fight against the British System of usury, feudalism, and imperialism—it is not a perfect model. Alas, no such model exists.

The fact is that the economic systems which have dominated the “Marxist East” and the “Capitalist West,” i.e., British liberalism, both share the fundamental flaw of having denied the role of the sovereign creative individual in a successful economic system. In recent history, both can be traced from Adam Smith; the more ancient models are those of the Babylonian and Roman Empires, which subsisted on looting every resource in sight.

The outcome of current history, then, depends upon defeating pantheistic, usury-ridden oligarchism, and replacing it with a system that will effect an “increase [of] the per capita productive powers of labor, scientific and technological progress.”

Never leave anything to the economists, LaRouche has always said, and this couldn't be more true today.

Therefore, LaRouche emphasizes, as he has done before, the necessity for learning the principles of statecraft, which are in coherence with natural law. To quote LaRouche, at the beginning of Chapter VIII: “The essence of good modern statecraft is the fostering of societies, such as sovereign nation-state republics, the which, in turn, ensure the increase of the potential population-densities per capita of present and future generations of mankind as a whole, and which societies promote this result by the included indispensable, inseparable means of emphasis upon promoting the development and fruitful self-expression of that *divine spark* which is the sovereign individual's power of creative reason.”

Natural Law

From this standpoint, LaRouche identifies the way in which the concept of the sovereign nation state, a classical educational policy, and the great projects approach that includes colonizing outer space, fulfill this requirement. Unlike George Bush's concept of a

New World order, LaRouche would have *natural law* be the only supranational authority in the world.

What is required, LaRouche expounds many times, is that the individual nation state bring itself into coherence with the need for fundamental scientific progress for all mankind, in the same way that the individual need bring himself or herself into coherence with the need for improving the quality of existence for mankind, now and in the future. The apparent conflict between the needs of individual and society, and nations against one another, are addressed from the standpoint of Plato's and Cusa's resolution of the problem of the One and the Many.

LaRouche's book is challenging, in that it makes it clear that there is no easy way out of the hole we have gotten ourselves into. A renaissance bringing together morality and science is going to take a lot of intellectual work, but, without it, there will be no future.

—Nancy Spannaus

For a Worldwide Effort To Promote Development

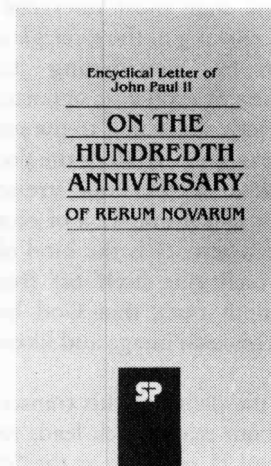
Centesimus Annus (The Hundredth Anniversary) was written by Pope John Paul II to commemorate the 100th anniversary of Pope Leo XIII's encyclical *Rerum Novarum* (New Things), which encyclical established what has come to be called the Catholic Church's “social doctrine.” Written in the wake of communism's collapse in Eastern Europe, the new encyclical is a welcome new application of the principles of the old one, to the problems facing humanity as a whole as we prepare to enter the next century and the third millenium of Christianity.

Since the collapse of communism was effected beginning in Poland in large part due to the social teaching of the Catholic Church, those who attempt to ignore the critique of liberal capitalism in this new encyclical do so at their own peril. Just as communism

fell because it violated the truth about man, so capitalism will fail unless its false notion of the primacy of the freedom of the market place is replaced by the Christian view that the market economy should be subject to what Pope John Paul II refers to as the *principle of solidarity* or what Pope Paul VI called the *civilization of love*.

Although free trade advocates have claimed that this encyclical is an endorsement of their brand of radical capitalism, Pope Paul II, like his predecessors, is critical not only of socialism but also of liberal capitalism. It is only by deliberately lying that one could miss this encyclical's criticism of “radical capitalism” and the Pope's advocacy of an alternative which he refers to as “free economy.” As John Paul II writes, “the Marxist solution has failed, but the realities of margin-

alization and exploitation remain in the world, especially the Third World, as does the reality of human alienation, especially in the more advanced countries.”



Encyclical Letter
Centesimus Annus
by Pope John Paul II
St. Paul Books and Media,
Boston, 1991
93 pages, paperback, \$3.95

The key to the Catholic Church's opposition to "radical capitalistic ideology" is the fact that, although it affirms the right of private property in opposition to socialist collectivism, it also teaches that the possession of material goods is not an absolute right, but that the use of such goods is subordinated to their original common destination as goods created for the benefit of man and the glory of God. Thus, the Church teaches that the dignity of man as a person is prior to the logic of the market place.

From this standpoint, Pope John Paul II calls for a struggle against an economic system which upholds the absolute predominance of capital in contrast to the free and personal nature of human work. As the collapse of communism should make clear even to the liberation theologians, the alternative is not socialism, but rather a "society of free work," in which the state does not stifle private initiative, but nonetheless is morally required to intervene in order to care for and protect the poor.

According to Catholic social doctrine, the state must intervene indirectly according to the *principle of subsidiarity* by contributing to the promotion of economic opportunities, and directly according to the *principle of solidarity* by defending the poor and defenseless. As the Pope stresses, the origin of evil in the area of economic and social activity is the kind of freedom which cuts itself off from the truth about man, that God has imprinted his own image and likeness on him.

It is the denial of this transcendent truth about man which leads to what John Paul II refers to as the "culture of death" which is reflected in anti-childbearing campaigns, which he describes as a form of "chemical warfare" against millions of defenseless human beings. It is the denial of this truth which gives rise to the use of drugs and other forms of destructive consumerism. It is also the denial of this truth which leads to the use of war to resolve conflict, such as in the recent Gulf War, which the Pope condemns, and also to the fact that the conditions

in the Third World today are still "a yoke little better than that of slavery."

World Development

The Pope calls for internationally coordinated measures to rebuild the formerly communist Eastern European countries, to overcome the underdevelopment of the Third World, and to make the necessary corrections in the developed countries of an economic system which carries the risk of an "idolatry" of the market. Repeating Pope Paul VI's declaration that "the name of peace is development," John Paul II writes, "Just as there is a collective responsibility for avoiding war, so too there is a collective responsibility for promoting development." He calls for a "concerted worldwide effort to promote development," and where necessary, to find ways to "lighten, defer or even cancel the debt."

At the same time, however, he stresses that "development must not be understood solely in economic terms, but in a way that is fully human." Therefore, "The apex of development is the exercise of the right and duty to seek God, to know Him and to live in accordance with that knowledge." Thus, economic development is not an end in itself, but rather the means by which man, through solidar-

ity with his fellow man, becomes more fully human, because he is acting in the living image of God.

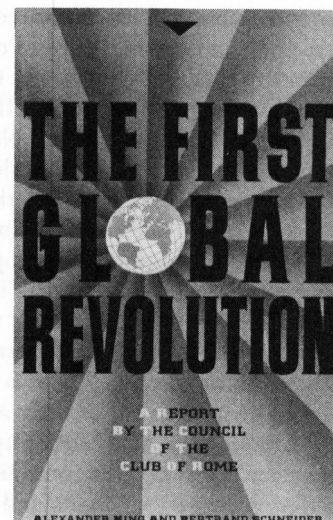
This encyclical, which is addressed to the Christian churches and to all the great world religions, is an invitation to all people of good will to offer "unanimous witness to our common convictions regarding the dignity of man, created by God." It is also addressed to the "many people who profess no religion" in the hope that they too will contribute to building a society worthy of man. As the Pope points out, this appeal "will not always win favor with everyone." However, "no one can say that he is not responsible for the well-being of his brother or sister," for "every individual, whatever his or her personal convictions—bears the image of God and therefore deserves respect."

On May 10, 1991 Helga Zepp-LaRouche, Chairman of the Board of the Schiller Institute, called upon the governments of the world to implement Pope John Paul II's new encyclical. As she wrote, "There is only one way out" of the catastrophe currently facing the Third World, "and that lies in immediately implementing . . . Centesimus Annus . . . and building a just new world economic order."

—William F. Wertz, Jr.

New Club of Rome Report Declares War on Humanity

In 1972, the United Nations convened an international conference on the environment in Stockholm, Sweden. The meeting succeeded in achieving the goals of its organizers: to give widespread credibility to the fraudulent idea that man's intervention on nature, in the form of scientific and economic development, necessarily leads to intolerable environmental



The First Global Revolution
by the Council of the Club of Rome
Pantheon, New York City, 1991
259 pages, paperback, \$15.00

abuse. That led to two decades of environmentalist assaults.

The conference, which was chaired by a Canadian named Maurice Strong, built on the arguments that had been put forth in a book published that same year called *Limits to Growth*. This was the first, controversial, and widely publicized report produced by the then-recently formed elite, neo-Malthusian organization called the Club of Rome, of which Strong was a charter member.

Now, twenty years later, this same powerful zero-growth network is preparing a new assault against the human species. In Rio de Janeiro, Brazil next June, the U.N. will convene an "Earth Summit," an eco-fascist extravaganza whose immediate goal is to establish a supranational, environmentalist dictatorship.

Once again, Maurice Strong is heading the effort. And once again, the Club of Rome—a self-described prestigious organization whose members include Queen Beatrix of the Netherlands, Czechoslovakian President Vaclav Havel, and former U.S. President Jimmy Carter—has issued a manifesto which is intended to exert strong influence over the agenda of the Rio meeting.

'Man Is the Enemy'

Titled *The First Global Revolution*, the new Club of Rome opus minces no words in putting forth its principal premise: "The common enemy of humanity is man," the study declares. All other problems are "symptoms," not "causes," which are "caused by human intervention. . . . The real enemy, then, is humanity itself."

Thus, it is not surprising that the report demands the continuing depopulation of the Third World, and Africa in particular, along with draconian controls on any future industrial and agricultural development, and the enforcement of the "sustainable development" (i.e., zero-growth) economic model, which will ensure mass starvation and death throughout the world.

The report is meant to be a "blueprint for the 21st century," co-authors Alexander King and Bertrand Schnei-

der declared at a press conference in Washington, D.C. Sept. 16. They confirmed that its publication was timed for maximum input into the Earth Summit. Close to one million copies will be printed in nineteen languages.

Club of Rome's 'New World Order'

Since its founding in 1968, the Club of Rome has played a pivotal role in the drive to impose a global neo-Malthusian order. This study represents its latest attempt to use quack "science" to justify policies that will mean mass misery and death.

This time around, the Club of Rome has picked up the two latest scientific frauds cooked up by the people-hating kooks in the environmentalist-zero growth lobby—"global warming" and the "greenhouse effect"—to justify its genocidal prescriptions.

Global warming and the greenhouse effect represent such a threat to the planet's survival, the Club of Rome report maintains, that it will be necessary to do away with the nation-state, "restructure" democratic governments, and erect new supranational institutions to enforce a draconian environmentalist regime throughout the world. This, King told the press, is the Club of Rome's "new world order."

The report specifically calls for setting up a U.N. Environmental Security Council, which would parallel the work of the U.N. Security Council, but in the area of the global environment.

Such an entity would be the equivalent of a global ecological police force, which would intervene to prevent countries from developing their economies by, for example, building large dams or steel complexes, on the grounds that such projects supposedly would pollute other nations.

Sovereignty, Democracy Must Go

Well aware that implementing such stringent measures will inevitably provoke political resistance of the kind which has already started to emerge in the Third World against the Brazil 1992 meeting, the report launches a

frontal assault against national sovereignty and the democratic system, on the grounds that these conceptions represent major obstacles to creating the supranational dictatorship, centered on a revamped and strengthened United Nations, which the Club of Rome wants.

"The very concept of sovereignty proclaimed as sacrosanct by all governments is under challenge and not only as a result of the development of regional communities," the report gloats. "Indeed, many smaller countries already have very little control over their own affairs in consequence of decisions taken outside their territories, such as the establishment of commodity prices or interest rates, or by economic policies modified to obtain IMF [International Monetary Fund] funding."

"Erosion of sovereignty," the report continues, "may be for most countries a positive move towards the new global system in which the nation-state will . . . have a diminishing significance."

War Against Iraq: Trend-setter

The study cites the war against Iraq as a trend-setter for future assaults on national sovereignty: "A new concept has emerged . . . 'the right to intervene,' [which] was recently put into practice. . . . It consisted in a humanitarian operation within the state of Iraq in favor of the Kurdish people. Such a concept, if it were to be confirmed in the future, would represent a considerable evolution in international law, which for one would be more of a reflection of humanitarian considerations than of constitutional rules and nationalist self-centeredness."

It is also indicative of the ghoulish mentality of the Club of Rome that the study becomes positively ecstatic when it predicts that ethnic strife, such as that now occurring in such bloody fashion in Yugoslavia, will grow. The authors clearly anticipate that this will exacerbate the collapse of central governments and allow for unfettered intrusions on national sovereignty.

—Kathleen Klenetsky

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Raphael's Plato and Aristotle

The most obvious proof of the direct ties between Raphael and the Platonic Christian tradition of Europe, from Nicolaus of Cusa to Erasmus of Rotterdam and Albrecht Dürer, is seen in the frescoes Raphael painted in the papal apartment of Pope Julius II in the Vatican, known as the *Stanze della Segnatura*. The frescoes are conceived as a rigorous proof of the Platonic notion, according to which the universe, a bounded but continuously self-developing process, and the mind of man, must be ruled by the same laws.

Raphael began these frescoes in 1509, at the very time when the papacy was at war against Venice, the bastion of the most ruthless Aristotelian and anti-Christian oligarchy of that time. In Rome, it was the year when the European Platonic current concentrated its maximum forces, and thus succeeded in playing a role in Vatican political decisions. In fact, one of the leading authors of the League of Cambrai

against Venice, was Erasmus of Rotterdam, and the military commander of papal troops against Venice was Baldassare Castiglione, a political and literary figure who was one of Raphael's closest friends. At the Lateran Council, the Church upheld the Platonic notion of the immortality of the individual soul, against the theory of the Aristotelian Averroes that there is only a collective world-soul after death, which theory was being vigorously promoted by the Venetians.

For these reasons Raphael portrayed the figures of the three main frescoes, with the faces of the main collaborators of his school, in a typical theatrical irony of his, as if to show the moment when the Platonists were culturally imposing their power inside the Church. Thus, the architecture painted in the *School of Athens*, an imaginary gathering of ancient masters of natural science, is no Greek temple, but imitates the design for the new St. Peter's basilica by

Raphael's friend Bramante, under construction at that time.

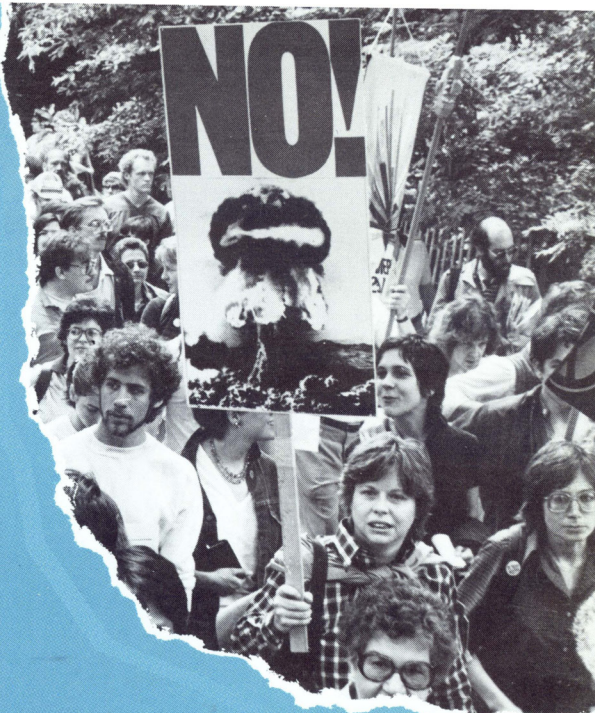
Plato and Aristotle at first seem on the same level, geometrically, but a closer look reveals another theatrical irony of Raphael: 1) Plato has the features of Leonardo da Vinci, the leading defender of Plato's method of the higher hypothesis; 2) Plato's face is brightly lit while Aristotle's is cast in shadow (from Plato to St. Augustine onward, light was the metaphor for truth); 3) Plato with his *Timaeus* under his arm strides forward—knowledge in motion. Aristotle instead, with his fixed stance—fixed knowledge—can move only if he drops his *Ethics*, held against one knee. Plato points skyward to the magnificent tripartite architecture created by "Golden Section" proportions, the growth ratio used to construct the dodecahedron, the regular solid to which Plato, in his *Timaeus*, ascribes the form of the universe.

—Claudio Ciccanti

In This Issue

The New Dark Age: The Frankfurt School and 'Political Correctness'

Even as communism collapses in the East, a cult of ugliness and death has come to so dominate the West that it now dictates what values are accepted as "politically correct." Ironically, this cult was spawned in the 1920's by a thinktank popularly known as the Frankfurt School, whose leading members were themselves members of the Communist International. Their objective? To "save" us from Western, Judeo-Christian civilization!



In the Foot steps of Plato and Socrates

Politics today is defined by the epistemological war that has raged for 2000 years between Plato and Aristotle. Elisabeth Hellenbroich shows why Plato's Socratic method laid the basis for all the great Christian humanist thinkers from St. Augustine, to Nicolaus of Cusa, to Leibniz, and finally, to LaRouche—inspiring all significant discoveries in science and art along the way—and why the oligarchical method of his opponent Aristotle must be defeated, if mankind is to survive and progress into the next century.



The Science of Music

Many believe today as Immanuel Kant did, "that there is no science of the beautiful." The ugliness of today's culture is a direct result of the success of the Enlightenment effort to divide art and science into separate domains, and to reduce art to a matter of subjective taste. Lyndon LaRouche and his collaborator, Jonathan Tennenbaum, demonstrate the contrary: that music (and, by implication, all the arts) is subject to the same laws as those which govern the physical universe.

