

FIDELIO

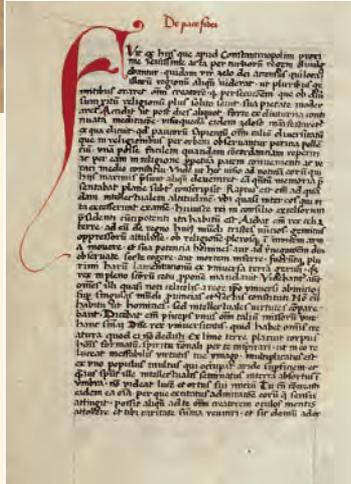
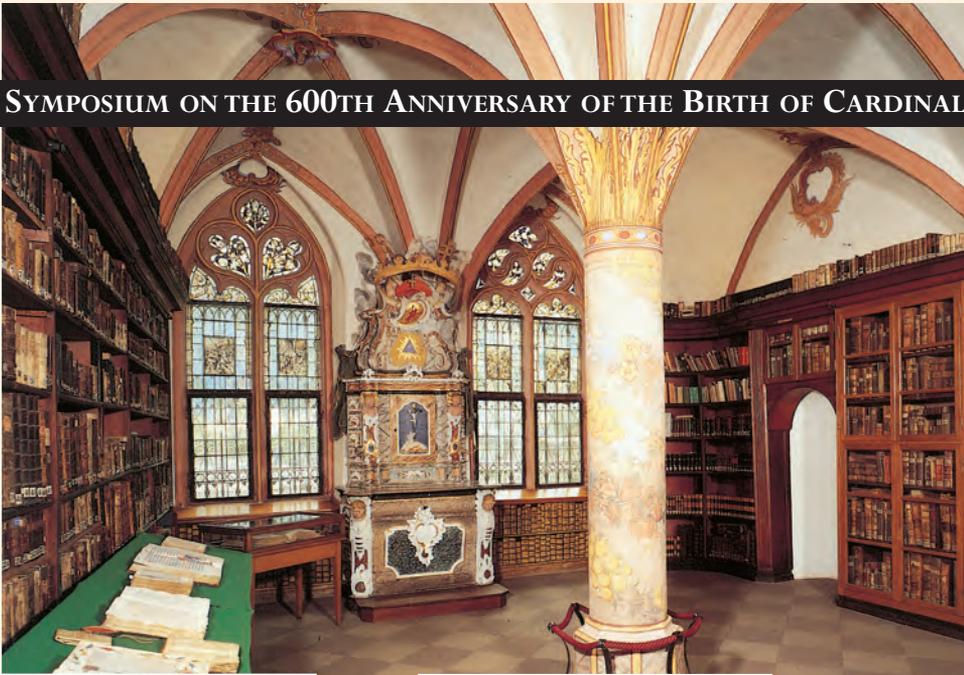
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A SYMPOSIUM ON THE 600TH ANNIVERSARY OF THE BIRTH OF CARDINAL NICOLAUS OF CUSA



Above: View of the Library, St. Nicolaus Hospital, Bernkastel-Kues, Germany. Manuscripts: (clockwise from top) *De docta ignorantia* (On Learned Ignorance); *De pace fidei* (On the Peace of Faith); text with geometrical diagrams. Below: Cardinal Nicolaus of Cusa (left), donor portrait from the Altarpiece in the St. Nicolaus Hospital.

Photographs here and in the text are reprinted from 'Nikolaus von Kues, 1401-1464: Leben und Werk im Bild,' by Dr. Helmut Gestrich, Cusanus-Gesellschaft, by the kind permission of the author.

The Fifteenth-century philosopher and statesman Cardinal Nicolaus of Cusa wedded the best developments of Northern Europe and Renaissance Italy: He was the first to enunciate the principle of representative government for the modern nation-state, laying the basis for the establishment of the American republic three centuries later. His Platonist philosophical method, the 'Coincidence of Opposites,' destroyed scholastic Aristotelianism, and cleared the way for all subsequent scientific progress. And, in the realm of statecraft, he charted a path of ecumenical dialogue, founded upon the commonality of man's participation in universal Creation. He was truly the towering genius of the Renaissance.



FIDELIO

*"It is through beauty that one proceeds to freedom."
—Friedrich Schiller*

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EDITOR-IN-CHIEF
William F. Wertz, Jr.

EDITOR
Kenneth Kronberg

ART DIRECTOR
Alan Yue

EDITORIAL ASSISTANT
Denise Henderson

BOOKS
Katherine Notley

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

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The Ecumenical Battle for the Common Good

As this issue of *Fidelio* goes to print, the world is on the verge of an accelerating financial-economic collapse and war in the Middle East. The Schiller Institute, under the leadership of Lyndon and Helga LaRouche, has succeeded in forging the only possible alternative to such a descent into a New Dark Age. In opposition to those who advocate such anti-human ideologies as globalization, free trade, deregulation, privatization, and a geopolitical clash of civilizations, the Schiller Institute, as reflected in the proceedings of its recent conference in Bad Schwabach, Germany, is waging an ecumenical battle around the concept of the common good, or, as it is expressed in the Preamble to the U.S. Constitution, the General Welfare.

Concretely, what is required for civilization to survive at this moment, is the creation of a New Bretton Woods monetary system to replace the bankrupt I.M.F./World Bank system of genocidal debt collection, which system must itself be put through Chapter 11 bankruptcy procedures. The new system proposed by LaRouche must be based on a community of principle among sovereign nation-states, in opposition to the oligarchical model of globalization. The principle capable of forging such a community, is a commitment to the common good or General Welfare for the people and posterity of one's own nation, as expressed in the Schiller Institute's fight against energy deregulation and against the shutdown of D.C. General Hospital in the nation's capital. One cannot stand idly by when premeditated murder is in the process of being committed. It is simultaneously a commitment to the General Welfare of the peoples of

all other nations, which requires the extirpation of the legacy of British, Dutch, Portuguese, and French colonialism.

At this moment in world history, the achievement of that principle of the General Welfare requires great, ecumenical development projects, centered upon the creation of Eurasian development corridors as the locomotive of a global economic Renaissance, committed to bringing justice to all of humanity.

Such a project, catalyzed by the Schiller Institute, has moved forward in the recent period, with the

announcement on May 15 of the creation of the Eurasian Transport Union (E.T.U.) and with the formation on June 15 of the Shanghai

Cooperation Organization (S.C.O.), whose members include Russia, China, and several predominantly Muslim Central Asian nations. Such cooperation must of necessity be ecumenical in nature, given the diversity of cultures.

Of strategic cultural importance in this fight for the common good, are the parallel efforts conducted by Pope John Paul II. Pope John Paul II's recent trip to Greece, Syria, and Malta, retracing the steps of the Apostle Paul, like the Bad Schwabach conference of the Schiller Institute, represents a bold effort to pull the world back from the precipice, and to establish the basis for world peace and development.

Prior to his trip, on April 27, the Pope wrote as follows: "It is the universal common good which demands that control mechanisms should accompany the inherent logic of the market. This is essential in order to avoid reducing all social relations to economic factors, and in order to protect those caught in new forms of exclusion or marginalization. . . . No system is an end in itself, and it is necessary to insist that globalization, like any other system, must be at the service of the human person; it must serve solidarity and the common good."

EDITORIAL

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In a May 7 statement, Lyndon LaRouche likened the Pope's mission to that of the Bad Schwalbach conference: "Future history looking back to these days, will recognize, that the only development of world importance to be compared with our sessions here, is the closely related, continuing ecumenical mission of Pope John Paul II, beginning with his recent strongly repeated attack, in defense of the universal principle of the general welfare, on the issues of globalization."

On May 15, upon his return to Rome, the Pope issued a statement on the occasion of the 600th birthday of the great Cardinal Nicolaus of Cusa, a report of which appears on page 27 of this issue. Cusanus, as the Pope notes, had also travelled to Greece in 1437 on an ecumenical mission, which resulted in the Union Council of Florence. This was the first and only time in the last thousand years that the Roman Catholic and Eastern Orthodox Christian faiths were reunited, albeit briefly. The Pope also notes that Cusanus reached out to non-Christians, especially Muslims and Jews, to avoid a clash of civilizations following the fall of Constantinople to the Turks in 1453.

It is, therefore, only appropriate that this issue of *Fidelio* be dedicated to the celebration of the 600th anniversary of the birth of Nicolaus of Cusa. It is precisely such an ecumenical mission today which is required, if European and Asian cultures are to cooperate for the common good, and if Muslim, Jew, and Christian are to avoid war and develop mutual trust in the Middle East, a trust which can only be based upon economic development for the good of all peoples.

What underlies the contributions of Cusanus, which are addressed in the articles in this issue, is his thoroughgoing commitment to the notion that man, as distinct from the animals, is a *cognitive* being, created in the living image of the Creator. For Cusanus, the power of the human soul is the power of cognitive Reason. From this concept, he derives his revolutionary conception of a universal concordance among sovereign nation-states, each

Words of Faith

I'll name you three content-laden words;
 From mouth to mouth they are chasing,
 But not from outside of us do they emerge—
 'Tis words from the heart we are facing.
 Mankind is of all his value bereft
 If in these three words no faith is left.

Man was created free—*is* free
 E'en though he were born in shackles.
 Do not be deceived by the rabble's bray
 Or idiots' abusive cackles.
 Before the slave, when his chains he doth
 break,
 Before the man who's free, O do not quake!

And virtue—this is no meaningless sound—
 Can be practiced each day if we trouble;
 And much as we tend to go stumbling around,
 Toward paradise, too, can we struggle.
 And what no logician's logic can see
 The child-like mind sees obviously.

And one God there is, a Will divine,
 However man's own will may waver;
 Supremely above all space and all time
 The living Idea moves forever.
 And though all's e'er-changing in form and
 in scene,
 Within that change rests a spirit serene.

Keep these three content-laden words;
 From mouth to mouth implant them.
 And if from without they do not emerge,
 Then your innermost soul must grant them.
 Mankind is never of value bereft
 As long as his faith in these three words is left.

—Friedrich Schiller

committed to the common good of all. Based upon this same concept, he also became the founder of modern physical science.

Today, if our civilization is to survive and flourish, it will be because the example of Nicolaus of Cusa will have gained new life through the parallel efforts of Lyndon LaRouche and Pope John Paul II—and, because you yourself have made their mission, your own!

The same use of orchestrated religious warfare, as organized by Venice from the Fourth Crusade through 1648, has today been unleashed in the aftermath of the collapse of the Soviet system. The world is now hovering at the brink of a planet-wide new dark age. The outbreak of religious warfare, under the circumstances of global economic crisis, could ensure that the threatened dark age becomes a reality.



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An Israeli soldier confronts Palestinian women in the West Bank, c. 1988.

Dialogue Among Cultures: The Road To Peace

by Lyndon H. LaRouche, Jr.

January 5, 2001

People have too often excused their lack of initiative to change existing policies, by arguing that history often appears to repeat itself. In fact, in nearly every crisis, mankind has always had within it the potential, and the moral responsibility, to change the course of history for the betterment of the human condition. So it is at the present moment of grave international financial and other crises. Now, once again, we again face the challenge of changing our fate, by an appropriate act of the human will. Today, the nations still have time to choose, during a relatively short period of time now before us, not to repeat the presently looming threat of religious wars and dark ages which have spoiled the progress of mankind most greatly during past cycles of both medieval and modern history.

On this occasion, I have three leading points to submit. First, I wish to define the meaning of a dialogue among cultures, in a way which is perhaps unique, but I think necessary, among the proposals I have heard made on this subject, from around the world, so far. Second, I wish to

emphasize the role of economic policy in defining the crucial, practical objectives of such a dialogue. Third, I wish to make clear the way in which certain powerful Anglo-American interests, such as Zbigniew Brzezinski's Samuel P. Huntington, and others, intend to foment religious warfare, as a way of preventing a dialogue among cultures from occurring. I shall begin by focussing upon the continuing part played by the willful instigation of religious warfare in modern European history.

1. Religious Warfare In Modern History

To situate the present discussion, consider but a few of those cycles of religious and related forms of warfare, which we should study as lessons from nearby past history, lessons to be applied to that deadly combination of growing potential for such warfare, in a strategic situation, today, which is otherwise defined by a presently onrushing general financial collapse confronting every

Speech presented to the final session of the symposium, "Peace Through Development Along the Nile Valley in the Framework of a New, Just World Economic Order," Khartoum, Sudan, Jan. 14-17, 2001. The symposium, which was co-sponsored by Sudan's Ministry of Information and Culture, the Centre for Strategic Studies of Sudan, Executive Intelligence Review, and the Schiller Institute, brought together leading political figures from a group of nations, including Sudan, Egypt, Ethiopia, and Nigeria, whose cooperation will be crucial to the development of the region. Lyndon H. LaRouche, Jr. was conference Special Guest speaker, keynoting the opening session with a presentation entitled, "The New Bretton Woods System: Framework for a New, Just World Economic Order." Papers and conference discussion have been published in the Feb. 9 and Feb. 23 issues of Executive Intelligence Review.

part of the world. My attention is focussed upon the willful orchestration of religious warfare, when used by great powers as a strategic weapon of conflict.

For example, for nearly a century and a half, from the 1511 victory of Venice over the League of Cambrai, until the 1648 Treaty of Westphalia, Europe was dominated by religious warfare. The Thirty Years War of 1618-1648, which produced the conditions of a new dark age in Central Europe, as during the earlier war of the Hapsburgs against The Netherlands, typified the entire period from about the A.D. 1511 formation of the so-called Holy League, until the 1648 peace of Westphalia.

These religious wars of the 1511-1648 interval, had been organized by the same Venice which had dominated the Mediterranean as an imperial maritime power, since what was called the Fourth Crusade (A.D. 1202-1204), through which Venice conquered and looted Byzantium. It was this same Venice, with its Norman allies, which, earlier, had organized the warfare and other ruin which brought about a great collapse of European civilization during the period from about A.D. 1239 through the so-called New Dark Age of the middle of the following century.

This same Venice continued that role, even after the Westphalia peace, for as long as it continued its position, as a leading, if fading imperial maritime power, until near the close of the Seventeenth century. In its post-1511 counterattack on the great reforms introduced under the Fifteenth-century Renaissance, Venice had not only orchestrated, but, to a large degree, created these warring religious factions of the 1511-1648 interval, most of which factions consisted of duped fools who were nominally Christian. By means of these Venice-directed religious conflicts, Venice managed to put those emerging sovereign nation-states of Europe, such as France, England, and the German states, which had been allied against Venice prior to A.D. 1511, at one another's throats.

Even during that 1511-1648 interval, there was some continuation of that splendid legacy of progress in art, science, and statecraft, which had been introduced by the Italy-centered, Fifteenth-century Renaissance. But, nonetheless, Europe as a whole was plunged into what some historians have correctly described as a "little new dark age," only less terrible than the earlier New Dark Age of Europe's Fourteenth century. It was only through the peace secured by the 1648 Treaty of Westphalia, that a somewhat civilized degree of progress and stability was achieved in Europe. The general progress in European economy and political institutions, continued during the often war-torn two and a half centuries following that 1648 treaty, until a turning-point was reached, as a result of the 1901 assassination of U.S. President William McKinley.

It was that assassination of McKinley, which was conducted in the strategic interest of Britain's King Edward VII, which set into motion an alliance between the British monarchy and its former foe, the United States, which unleashed all of the great wars and related conflicts which dominated most of the Twentieth century, up to the present time.

It is important to recognize, that the orchestration of military and kindred forms of strategic conflict, during the entirety of the period following World War I, and until the collapse of the Soviet system during 1989-1991, were organized in the form of religious warfare, largely around the theme of that "crusade against communism" of which Hitler's Nazi regime had been a product and part.

Notably, in all three of these cited cases, that leading into the New Dark Age of the Fourteenth century, the "little new dark age" of 1511-1648, and the great wars of the Anglo-American Twentieth century, these financier-oligarchical factions which dominate the ruling financier circles of the Anglo-American alliance of today, were always products of a specific imperial factor of influence. Contrary to the generally accepted mythologies, these wars were not rooted in conflicts in national interests of nations as nations, but were essentially ideological conflicts, either as religious wars, or ideological conflicts, such as the anti-communist crusades, which were of the same character as religious wars.

During the Thirteenth through Seventeenth centuries, for example, Venice, as an imperial maritime and financier-oligarchical power, was the determining influence. In every case, the war was either orchestrated by Venice itself, or by a form of financier-oligarchical interest which had been built up according to the Venice model.

In later times, it has been the Anglo-Dutch financial-oligarchical interest, which is the model imitated by the rentier-financier interests of Wall Street today. These Anglo-Dutch interests, as typified by the Dutch and British East India Companies, were created, during the course of the Sixteenth and Seventeenth centuries by Venice's powerful financier oligarchy, and modelled themselves, as merchant-banking maritime powers, upon the Venice which had, in fact, authored what became the Dutch and British financier oligarchy of the Seventeenth and Eighteenth centuries. Indeed, since the last decades of the Sixteenth century and early decades of the Seventeenth, it was Paolo Sarpi, then the lord of Venice, who created that empiricist ideology of Thomas Hobbes, John Locke, Bernard Mandeville, and Adam Smith, the ideology which, as Henry Kissinger emphasized in his May 10, 1982 Chatham House keynote, is the empiricist way of thinking which shapes the characteristic mind-set and global behavior of the Anglo-American financier oli-

garchy, and Kissinger himself, still today.

Still, today, the same legacies of religious warfare from the past are actively promoted, as so-called geopolitical conflicts against China and others, by the financier-oligarchy's New York Council on Foreign Relations.

Today, the same use of orchestrated religious warfare, as organized by Venice over the interval from the Fourth Crusade through 1648, has been unleashed again, in the aftermath of the 1989-1991 collapse of the Soviet system. The world as a whole is now hovering at the brink of a threatened, planet-wide new dark age. The outbreak of religious warfare, under these circumstances of global economic crisis, could ensure that the threatened dark age becomes a reality.

Since the Fifteenth-century introduction of a new form of society, the modern form of sovereign nation-state, and, especially since the 1648 Treaty of Westphalia, the old cyclical pattern has taken on a significantly modified form. In this form, it is the cycles of recurring economic crisis which supply a critical element of impulse and timing, for the modern cycles of religious warfare and kindred conflicts.

Look at the present threat of such religious warfare, and of related kinds of ideological warfare, from the standpoint of what the world as a whole should have learned from Europe's experience of 1511-1648. Let us examine this history with that patient consideration implied in the famous remarks of one notable Harvard Professor Santayana, that those who fail to learn from the history I have just referenced, are therefore condemned to repeat it.

2. The Global Strategic Crisis of Today

To understand the specific qualities of the past decade of unfolding world history, we must focus on axiomatic changes in the correlation of political and economic power which developed during and since the 1989-1991 collapse of the Soviet Union as a leading strategic force.

Beginning 1990, the forces represented by Britain's Prime Minister Margaret Thatcher, France's President François Mitterrand, and the U.S.A.'s President George Bush, Sr., orchestrated an armed conflict between Iraq and Kuwait, which was then used, as a pretext, for unleashing a war against Iraq, which has, in fact, been continued up to the present moment.

The launching of this London-directed war against Iraq, was immediately followed by the unleashing of a series of new Balkan wars, launched under the direction of those British and French interests which had controlled Balkan politics since the post-Versailles Trianon

treaty. That Balkan war has been continued, like the Thirty Years War of 1616-1648, and also the Balkan wars preceding World War I, in an evolving form, up to the present moment.

During the same recent period, through the present moment, there has been an orchestrated effort to drown much of Europe in what Zbigniew Brzezinski's associate, Professor Samuel P. Huntington, has proposed should be fostered to become a "Clash of Civilizations," a term which, the Professor has indicated, signifies the intent to manage the politics of nations throughout our planet, by provoking a great conflagration, in the general form of religious warfare, pivotted upon the inciting of a more or less interminable and bloody conflict between Islam and the West.

Professor Huntington's and his associates' proposal, for a nearly planet-wide religious conflict of European civilization against the Islamic world, has been intended as a detonator for this new wave of religious warfare, and has been the setting into motion of the already existing explosive charge of three generations of bloody Arab-Israeli conflict.

At this moment, the intent is to deploy the lunatic types of U.S. Protestant fundamentalists, such as President-elect George Bush's nominee John Ashcroft, closely associated with the incoming U.S. Bush Administration, to foster an atrocity against the sacred Dome of the Rock in Jerusalem, for the purpose of detonating the potential for a new Israeli-Arab war. This war is intended, not only to continue the destruction of Arab states such as Syria and Iraq, but to engage Iran, too, as a target of Israeli attacks, and thus spread the warfare through regions of the world associated with Muslim populations and their neighbors.

We see the same thrust expressed in the fomenting of religious and related strife, organized by the former Anglo-Dutch and Portuguese colonial powers, within Indonesia, and in the hateful targetting of Malaysia by such persons as U.S. Vice-President Al Gore and Gore's accomplice, the avowedly fanatical follower of H.G. Wells, Secretary of State Madeleine Albright. We see the intent of certain Anglo-American interests, to ignite new waves of communalist warfare in the sub-continent of Asia.

Like the religious wars orchestrated by the imperial maritime power of Venice, during the 1511-1648 interval, the threat of widespread religious warfare today, also has a readily defined architecture, as this is merely typified by the close personal, extended family relationship, across Party lines, of Samuel P. Huntington associate Zbigniew Brzezinski to Mrs. Albright, her father Josef Korbel, and Korbel's protégé, U.S. President-elect Bush's advisor, Condoleezza Rice.

Ironically, but not accidentally, the motives for

The modern sovereign form of nation-state, as expressed by the U.S. 1776 Declaration of Independence, emphasizes the fostering of those creative powers of scientific and other discovery, by means of which each person may be enabled to participate in and contribute to the progress of the human condition from one generation to the next.



*Third graders
experiment
with seedlings,
Pittsburgh,
Pennsylvania.*

Bayer Corporation

Venice's orchestration of the 1511-1648 religious warfare, and the motives of Brzezinski, Huntington, and others, for seeking to unleash a so-called "Clash of Civilizations" today, are essentially the same.

Then, in 1511-1648, Venice's motive was to destroy that process of establishing modern forms of sovereign nation-states, such as those which had been founded by France's Louis XI and England's Henry VII. In this, the Venice-directed Holy League and its sequels nearly succeeded. It was the Treaty of Westphalia, which rescued the modern form of sovereign nation-state from the same fate as Europe of the Fourteenth-century New Dark Age. It was the establishment of international law by the Treaty of Westphalia, which permitted the institution of the modern nation-state to emerge as the characteristic institution of modern European civilization.

Today, the form of that conflict is somewhat different; many of the names have changed; but the pattern is essentially the same. Today, the orchestrated ideological form of global conflict, is a conflict with the imperial

interest of the Five English-Speaking Powers, an interest stated in such purely ideological language as "globalization" and "rule of law," symbolic terms which express a revival of the notions of empire and law associated with pagan Rome, terms which express a religious quality of hateful opposition to the principle of the sovereign nation-state.

The ruin of Soviet power, during 1989-1991, encouraged the powers associated then with Britain's Prime Minister Margaret Thatcher, France's President François Mitterrand, and the U.S.A.'s President George Bush, to declare those five English-speaking powers, the Queen of England's United Kingdom, Canada, Australia, and New Zealand, and the U.S.A., as an Anglo-American world-government in fact and force.

Thus, under the latter reign of the 1989-2000 period, not only have measures been taken to destroy the legal basis for the sovereign form of nation-state, but the economic basis as well. Policies of "free trade" and "globalization," combined with the curious use of the name of

“democracy” by Brzezinski’s Huntington, represent the effort to establish a style of world-wide imperial rule modelled not only upon the “geopolitical maritime” model of medieval and modern Venice, but also upon the precedent of ancient pagan Rome, a neo-Roman form of imperialism based upon what some have called, euphemistically, “the rule of law,” more honestly described as “the imperial rule of Roman law.”

The Anglo-American impulse behind this development of 1989-1991, did not begin at the close of the 1980s; exactly such goals had been the goal of the British monarchy since the 1901 assassination of U.S. President McKinley, an assassination which brought financier interests associated with the former slave-holding Confederacy and Wall Street finance into a close alliance with imperial Britain. This was, for example, the repeatedly declared intent of the principal author of the nuclear bombing of Hiroshima and Nagasaki, Bertrand Russell, the intent to compel nations to dissolve their sovereignties in favor of a Roman-style, imperial form of world government.

The connection to 1511-1648, goes even deeper than such leading particular sets of facts of modern European history. Imperial Venice was a form of power based upon a financier oligarchy which spread its tentacles throughout the trade, finance, and politics of all Europe. The Anglo-American interest represented by the would-be imperial Thatcher-Mitterrand-Bush cabal of 1989-1991, and by the matching U.S. Thornburgh doctrine, represents the same kind of special oligarchical interest.

Thus, today, once again, the peace and stability of our planet is threatened, by the unleashing of those kinds of orchestrated religious warfare, which are the most difficult kinds of war to bring to an end, and the most likely to bring a new dark age upon either some large area of our planet, or even, the planet as a whole. So, it is urgent that we, today, learn certain valuable lessons from the recent eight centuries of today’s now globally extended European civilization; it is important to recognize points of historical coincidence between what was achieved by the 1648 Treaty of Westphalia, and what has been lately proposed, as by such leading figures as the President of Iran, as a dialogue among cultures.

3. The Economics of a Doomed System

Although the use of religious warfare as a strategic weapon is very ancient, the Twentieth-century cycle has crucial features which make the present world economic crisis qualitatively different than any other crisis of the preceding two centuries of the history of today’s globally extended form of modern European culture.

During the Twentieth century, until about 1966-1971, the overall trend in economic development was for an increase in the average productive powers of labor, and for improvements in demographic characteristics of the population of Europe and the Americas, in particular. Beginning about thirty-five years ago, beginning during the 1966-1968 Presidential campaign of Richard Nixon, there was an orchestrated resurgence, within my U.S.A., of the pro-racist forms of allied, so-called “Christian fundamentalist” and what Israel’s David Ben-Gurion had once condemned as pro-fascist, “right-wing Zionist” beliefs, which, taken together, are the chief mass-based expressions of ideological impulses behind the Southern Strategy factions in the Republican Party, as introduced under President Jimmy Carter, to the Democratic Party, too. Under the influence of this ideological influence on U.S. policy-shaping, the demographic characteristics of the Americas and Europe have been moving, by intention, along a downward course.

Typical of this downward trend, has been the spread and intensification of pro-Malthusian policies, and the systemic destruction of the economies of those and other regions of the world under those influences. Once the Soviet system ceased to be a strategic rival of the trans-Atlantic power, the governments of those powers moved, immediately, to bring about a general destruction of those institutions of basic-economic infrastructure, agriculture, and industry, upon which the strength and security of nations had depended up to that time. This savage destruction of the former “full-set economic potentials” of national economies, unleashed with full force, globally, during the recent decade, represents an acceleration of economically suicidal trends in the same direction launched within the U.S.A., and elsewhere, in the aftermath of both the assassination of U.S. President John F. Kennedy, and President Lyndon Johnson’s sponsorship of two civil-rights laws whose enactment enraged the traditional racist currents within the U.S.A.

This coincidence between the rise of pro-racist policies in the leadership of both the Republican and Democratic parties of the U.S.A., and the promotion of so-called neo-Malthusian, and also racialist policies for economy and population-control, was never accidental. This connection is best understood from inspection of the relevant internal history of the U.S. itself. This connection exposes the crucial problem which must be overcome, if we are to enjoy the cooperation and other benefits to be sought through a dialogue among cultures.

The institution of chattel slavery, as practiced in the U.S.A. upon persons designated as of African descent, is

much more than an obvious crime against the victims of such inhumanity. Such practice of slavery, as upheld by the authors of the treasonous conspiracy known as the Confederate States of America, expresses a conception of mankind which is intrinsically contrary to the conception of man under the Mosaic doctrine common to Christianity, and Islam. The forces which have seized a dominant position in the political parties of the U.S.A. since Nixon's 1966 launching of the Republican Party's Southern Strategy, are premised upon the Confederacy's perverted and degenerate conception of the nature of man. Many of the supporters of that neo-Confederate political outlook, such as the popular base of the Bush Republicans such as President-elect Bush's nominee John Ashcroft, and the Gore Democrats, profess themselves to be Christians; obviously, they are not.

Not only are such neo-Confederate cultural outlooks intrinsically racist, and therefore anti-Christian and anti-Islam. The political and economic policies of those pro-racist currents are fully congruent with their pro-bestial, virtually satanic misconception of the nature and rights of the human individual personality.

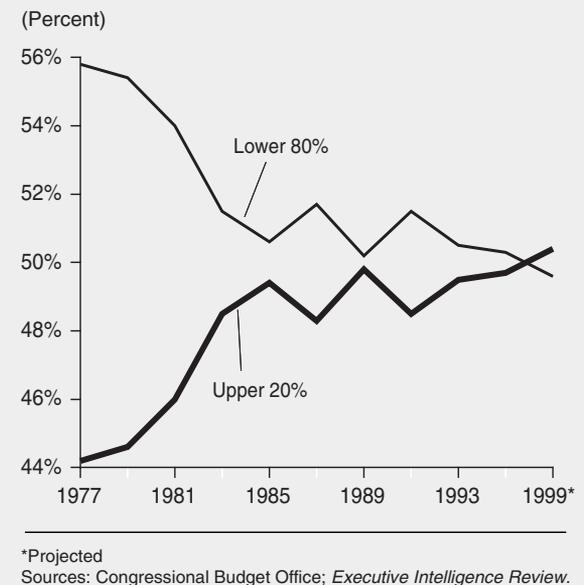
On this account, the issues of economy and dialogue of cultures, become immediately one and the same.

The modern form of European civilization, the form known as the sovereign nation-state republic, derived its conception of economy and politics from a long struggle in Europe to establish forms of nation and economy which are consistent with Christian civilization's conception of the essential nature of man, as a creature made in the image of the Creator.

Thus, the revolutionary, modern form of European sovereign nation-state, as first defined during the Fifteenth-century Renaissance, was premised on the notion that government has no moral authority under law, except as that government is efficiently committed to the promotion of the general welfare of both all of the living and their posterity. In other words, earlier forms of society, in which some men treated the majority of humanity as virtually human cattle, were to be outlawed. Society must be constituted, as obliged by its highest law, natural law, to express and protect that quality of the individual person which coheres with the notion of man as made in the image of the Creator.

Thus, the modern sovereign form of nation-state, as expressed by the U.S. 1776 Declaration of Independence, like the policies which informed Louis XI's France and Henry VII's England during the late Fifteenth century, emphasizes the fostering of those creative powers of scientific and other discovery, by means of which each person may be enabled to participate in and contribute to the progress of the human condition from one generation to

FIGURE 1. *America's richest 20 percent now make more than the other 80 percent.*



the next. As this policy was set forth by Nicholas of Cusa, during the Fifteenth century, this requires that we adopt as an objective an ecumenical fraternity among sovereign nations, such that each is pledged to promote the common good for its own people, and to cooperate in a community of principle among nations, to promote the common good of them all.

In contrast to this, today's U.S. ideological followers of the Confederacy's tradition, insist on placing the "free trade" interest, and that of so-called "shareholder value," not only above human values, but even as opposed to human values. They not only oppose, but denounce that principled dedication to the general welfare, which is the highest constitutional law of the U.S. republic.

In the history of progress within modern European civilization, the building-up of the means for scientific and technological gains in the productive powers, and conditions of life, of labor in general, was expressed in large-scale promotion of basic economic infrastructure, chiefly by government, and the fostering of credit to assist farmers, industrial entrepreneurs, and others, in prospering in those activities which represented a contribution to progress in the general welfare of the society as a whole.

The economic forces associated with such progress, include progressive individual farmers, entrepreneurs, technologically progressive forces of industrial labor, and the scientific and other professions essential to fostering such progress.

The 1966-2000 attempt of the neo-Confederacy forces to re-establish and consolidate the traditions of the slave-holders' Confederacy, has been expressed in a rabid effort to eliminate the political power of those combined, agricultural, industrial, and professional forces in society, on which support for the principle of the general welfare depended. Thus, the lower eighty percent of the family-income brackets of the U.S.A., which commanded the overwhelming majority of the total national income in 1977, when Jimmy Carter became President, have been reduced, by Carter's and other policies, to far less than half the total today [SEE Figure 1].

Thus, in the U.S.A., Europe, and elsewhere, since the mid-1960s, we have witnessed a malicious and increasingly savage commitment to the destruction of those elements of infrastructure, agriculture, industry, and relevant learned professions, on which the successes of pre-1966 economy depended, in the U.S.A., Europe, and elsewhere.

Because of the extensive destruction of those elements of national and world economy, on which the pre-1966 recovery of the U.S. and European economies depended absolutely, we have reached the year 2001 in a global condition far worse than that of the 1929-1931 financial collapse. The successes of the neo-Confederacy and like-minded forces of neo-Malthusianism, globalization, and related utopianism, have destroyed the substructure of the world's economy to such a degree, that the economic crisis now gripping the world, is no mere business-cycle or similar crisis; this planet, for the first in modern history, now faces a general economic-break-down crisis.

This consideration points out the crucial role a dialogue among cultures must play in preventing the plunge of the entire planet into a global form of new dark age for all humanity.

4. Economics, Politics, And Faith

The possibility of avoiding such a new dark age, requires a great degree of emphasis upon the economic side of the discussion. Economics, if properly defined, as physical economy, rather than price-accounting, was created as an expression of that conception of the nature of man as a creature made in the image of God, to exert dominion over all other things. This notion of physical economy, provides the foundation upon which various cultures' agreement in practice must be premised.

Economics as a scientific practice of statecraft, was first developed during Europe's Fifteenth century. This occurred as a by-product of a then new, revolutionary

design in statecraft, a design upon which the continuation of the institution of the modern form of sovereign nation-state depends absolutely.

Before that Fifteenth-century reform, the population existed for the pleasure, comfort, and power of a ruling oligarchy and its lackeys. This was the kind of oligarchical society defended by the reactionary Dr. Quesnay's doctrine of *laissez-faire*. It was the introduction of the principle, that the moral legitimacy of government depends upon its efficient commitment to promote the improvement of the general welfare of the entire population and its posterity, which was the act of birth of political-economy, with the emergence of such pioneering new forms of government under France's Louis XI and England's Henry VII.

Within that context, the core of the basis for the kind of strategic dialogue of cultures needed today, is therefore to be found in that conception of the nature of the human individual which is common to the Mosaic tradition of Judaism, Christianity, and Islam: the conception that each person is made in the likeness of the Creator, and thus endowed with certain innate powers not to be found among the beasts. This is especially true of Christianity and Islam, which have been both characteristically missionary cultures, reaching out to all mankind with this common message, that the individual person is made in the image of the Creator and endowed with powers like those flowing from the Creator Himself.

In particular, for the case of today's globally extended modern European civilization, all of the notable successes, which had been more or less peculiar to the rise of modern European civilization since the Fifteenth-century Renaissance, have been the fruit of basing the notion of modern sovereign form of nation-state upon that conception of the universal nature of the human individual, as a creature made in the image of the Creator, and having the obligations and rights of one bearing that nature.

Thus, this notion of the nature of man is historically characteristic of the modern development of Europe, the Americas, Africa, and the Islamic world generally. In some influential cultures from other parts of the world, this notion of man is not accepted axiomatically, even though there may be sympathy for it, in practice if not necessarily in traditional beliefs.

In those broad terms, such are the conditions of belief around which an efficient form of dialogue of cultures is to be organized. I propose that the following steps are the most essential ones.

First, those of us, who embrace the notion of the nature of the individual person as made, from inception, in the likeness of the Creator of the universe, must estab-

lish an ecumenical fraternity among ourselves on the premise of this specific conception of the nature of the person. Through our unanimity on this strictly defined, limited point of ecumenical agreement, we must reach out in dialogue with others, to win them to understanding of certain notions of what may be called “natural law,” upon which all nations and peoples might premise a suitable fraternity.

Second, we must persuade those who may require such persuasion, that it ought to be the common principle, both within states, and among the members of a community of nations, that government has no legitimate moral authority under rule of natural law, except as it is efficiently committed to promote the general welfare of the entire population and its posterity. This definition of general welfare, sometimes called the common good, must be in accord with the given nature of the human individuality.

Third, from this conception of the common good, we must derive a self-governing sense of mission. It is not sufficient to agree to words on paper. Intention must be expressed in positive action; intention is no more sincere than the commitment to a sense of mission which makes professed intentions real ones. There are grave injustices rampant in the world today, not only those injustices imposed by willful cruelties, but injustices which are the fruit of negligence.

On this third account, the most crucial moral test by which the good will of any nation is to be assessed, is that nation’s view of the generally worsening conditions imposed, or otherwise induced within the continent of Africa, sub-Saharan Africa most emphatically.

It is notable, that U.S. President Franklin Roosevelt, confronted Britain’s Prime Minister Winston Churchill on this matter of Africa, during their celebrated wartime confrontation at Casablanca. Roosevelt presented there a rather detailed picture of the large-scale infrastructure-building and related measures to be taken with U.S. support during the post-war period. Roosevelt also warned Churchill that, at the close of the war, the power of the U.S.A. would bring to an end the relics of the colonial and imperial rule by Portuguese, Dutch, British, and French interests, over colonized and semi-colonized parts of the world. Unfortunately, as soon as Roosevelt’s premature death had occurred, his successors in power took the side of Churchill against Roosevelt’s intentions.

Now, the preceding background so outlined, I come to the meat of the matter.

I propose, that all of the essential features of a relevant form of policy-discussion among cultures can be derived from examining what ought to be considered the shared

ecumenical principles among Christianity, Islam, and the Mosaic principle, that all men and women are made equally in the image of the Creator, and endowed with those powers by means of which mankind should exert dominion over other forms of life and non-life alike. When I use the term “natural law,” I mean that, as it is also incorporated in the 1776 U.S. Declaration of Independence. If we accept this definition of the individual person’s nature as the basis for the universal natural law, by which mankind must govern itself, all of the essential axioms of cooperation among those cultures are implicitly provided.

In that case, if we, sharing such ecumenical commonality, agree, then we must also reach out to our brothers and sisters in cultures which do not necessarily adopt the conception of man shared among the heirs of the Mosaic tradition. We must establish a form of ecumenical comprehension between ourselves and those brothers and sisters.

In considering such a course of action, we should be forewarned by the lessons of the way in which the enemy has utilized the weapons of religious and kindred warfare repeatedly, in the past. Only, as the 1648 Treaty of Westphalia approximates this lesson for the modern European experience, if we are sufficiently committed to a common principle as the fundamental political interest of each of us, in common, as a mission expressed in practice, will we be able to defeat those forces of evil merely typified by the case of Samuel P. Huntington today.

We must also be advised, that commitment to mere letter of ecumenical agreement, is not sufficient. We must give substance to agreement through forms of common practice, which are coherent with that agreement in principle.

What that sense of mission must be, is shown to us, in the simplest way, by considering the span of development of the newborn individual to the point it has become a matured adult. The lessons of economic history show us, that just as the biological maturation of a newborn person requires a period of development spanning about a quarter of a century, so the practical goals which should unite us must be expressed in terms of the benefits our generation will contribute to the role to be played by the children and adolescents of today. I mean, we must concretize our agreements on grounds of moral principle, in terms of those great works to be undertaken over a period of up to twenty-five years, more or less.

Such works are, typically efforts in building-up the essential basic economic infrastructure, on which the future of productive economy depends. This means large-scale development of systems of transportation,

What we do, or fail to do for Africa, has a special quality of significance for humanity as a whole. It will be an emblem of our conscience, a mission whose success will attest to the fact that we, of all parts of this planet, have become truly human, at last: truly human in our conception of the universality of human nature.



*Refugees fleeing
Rwanda's civil war
pass corpses at
roadside.*

© David & Peter Turnley/COFBIIS

water management and sanitation, and power-generation and distribution. It also means the development of the systems of education, public health, and health-care on which the productivity and longevity of the population depends.

On this account, what we do, or fail to do for Africa as a whole, has a special quality of significance for humanity as a whole. There are, of course, great and urgent large-scale developments of the basic economic infrastructure of Eurasia, as there are similar challenges to be made in the Americas as a whole. However, to leave Africa to its own internal resources, would be a crime which would stain the conscience of the world. What we do for Africa, will be an emblem of our conscience, a mission whose success will attest to the fact that we, of all parts of this planet, have become truly human, at last: truly human in our conception of the universality of human nature.

In conclusion, our goals should be chiefly three.

First, we must define that ecumenical conception of man, avoiding conflict respecting other matters of religious beliefs, man as made in the image of the Creator of

the universe, from which all notions of rational law are rightly derived.

Second, we must establish a secular agreement of principle among a newly defined community of perfectly sovereign nation-states.

These two policies must be expressed by a third, a commitment to broadly defined physical-economic and related missions, of not less than a quarter-century's span. These missions are of three general types. The first is typified by those kinds of great infrastructure developments on which depends the ability of peoples to develop their nation's land-areas as a whole. The second, typified by education and public health programs, is the development of the potential productivities that their populations as a whole, requires. The third, is the commitment to selected common goals of fundamental scientific and technological progress, to which all peoples shall have the equal right to access.

Such an understanding of the nature of man, matched by such a commitment to a mission for practice, is the foundation upon which a successful dialogue among cultures depends.



A SYMPOSIUM ON THE 600TH ANNIVERSARY

Nicolaus of Cusa, Towering Genius of the

The Fifteenth-century philosopher and statesman Cardinal Nicolaus of Cusa wedded the best developments of Northern Europe and Renaissance Italy: He was the first to enunciate the principle of representative government for the modern nation-state. His Platonist philosophical method, the ‘Coincidence of Opposites,’ destroyed scholastic Aristotelianism, and cleared the way for all subsequent scientific progress. And, in the realm of statecraft, he charted a path of ecumenical dialogue, founded upon the commonality of man’s participation in universal Creation.

FIGURE 1. Benozzo Gozzoli, “Journey of the Magi,” 1459 (detail). The mural subject was chosen as a metaphor celebrating the 1437 Council of Florence, and portrays the ingathering of the Council participants—the poets, philosophers, and statesmen of the time—from both the Latin West and the Greek East.



Renaissance

by Helga Zepp LaRouche



It is an extraordinary joy for me to speak about my good friend, Nicolaus of Cusa. And, given the fact that it is his birthday somewhere between April and June, he will be 600 years old. And I really mean the joy of a friend having a birthday, because when a friend has a birthday, you realize that without this individual, the world would be so much poorer. And I hope that with my remarks, I will interest you in studying Nicolaus of Cusa, his ideas and concepts, so that he becomes one of your dear friends, too, if he is not so already.

The reason why this particular man is so extraordinarily important is, because it was his ideas which gave the beautiful, Italian Renaissance, the Golden Renaissance of Florence, an even higher expression, because he was the towering genius among all the many geniuses who came together at that point. It was this unbelievable, fantastic explosion of human creativity expressed in this Renaissance, which succeeded in overcoming the Dark Age of the Fourteenth century. And, it is more urgent than ever before, to study the example of the Golden Renaissance, to find the clues of how we can overcome the Dark Age of today.

Just as during Nicolaus's time, when the issue of peace was of the highest actuality, so today we have terrible wars

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raging in Africa, in the Middle East, in the Balkans, but also within nations, like Colombia, Indonesia, and many other countries. The image of man, which Nicolaus so beautifully defined, is once again in shambles; and when the British press talks about “culling people” in the context of the next global flu epidemic being the equivalent of hoof-and-mouth disease for human beings, you can see what the value of human life is today. As in Cusa’s time, the challenges of these new diseases are such that a new scientific revolution is required. But, also, the issues which concerned him—namely, what should be the principles according to which countries, nations, and peoples relate to each other?—are of the utmost importance today.

To answer all of these questions, one of the most important struggles to understand, both then and now, is the conflict between those, on the one hand, who contributed to the emergence of the sovereign nation-state, through fundamental changes in world outlook during the transition from the Thirteenth to the Fourteenth centuries, and especially in the Fifteenth century and Nicolaus’s contribution; and those on the other side, who wanted to go back to imperial structures of the period before that, such as the forces of globalization today. That globalization is a new version of the old Roman Empire, an Anglo-American version, which actually kills entire continents and turns the world into a global plantation, is now being seen by more and more people.

But, how precious the instrument of the sovereign nation-state actually is for the defense of the common good, and what enormous efforts it took, to arrive at the concepts of national sovereignty and a community of states based on international law—the knowledge of this has been thoroughly obscured by those who benefit from globalization, and who point to the nation-state as the source of all evil.

What I want to do in this presentation, is to set the record straight, and completely agree with that genius of international law, the late Baron Friedrich von der Heydte, that the ideas of a community of states based on international law, are so very integral to European culture, that this culture cannot even be thought of, without them. Globalization directly threatens the very essence of European culture. Let me therefore present to you some of the ideas, which went into the emergence of the nation-state and the community of nations based on international law, and then show you, why the works of Nicolaus of Cusa meant a qualitative change in the tradition of all Platonic thinkers before him, and why his breakthrough of the *coincidentia oppositorum*, the thinking of the opposites in coincidence—which today is rep-

resented in a qualitatively enriched form by Lyndon LaRouche—is exactly the level of thinking necessary for a Renaissance today!

Birth of the Nation-State

So, what steps were necessary, for the nation-state to come into being?

Dr. Sergei Glazyev spoke two days ago about world organizations, the I.M.F., World Bank, W.T.O.; and if, while I’m speaking, you think about the emergence of the nation-state, you can actually see that the effort to put these current instruments of globalization in control of the world, is an effort to turn the clock back before A.D. 1000, 1100; actually, before the idea of sovereignty existed.

The Middle Ages in Europe were essentially dominated by two poles: the Holy Roman Empire, on the one hand, and the Papacy, on the other; but, despite changing rivalries, these were united in the concept of a universal, occidental Christianity, in which the philosophical idea of the “*reductio ad unum*,” the reduction of the multitude to unity, governed the political thinking of the time. For example, the “Königsspiegel” (“The King’s Mirror”) of Gottfried of Viterbo (1180) develops this universal idea of the Emperor, with all its tradition, in a straightforward way. Even if there were other, regional ruling structures from the Tenth to the Twelfth centuries, one could not call these regional power formations, “states.”

It took the decisive change in political thinking, during the transition from the Thirteenth to the Fourteenth centuries, for the different aspects of what eventually, with Nicolaus of Cusa, constituted the sovereign nation-state, to emerge.

Around the turn from the Thirteenth to the Fourteenth century, the top of the old hierarchical order—the Empire, and the Church as a temporal power—lost influence, and power structures on a lower level were strengthened. Eventually, these no longer recognized any power, or decision-making authority, above them, arrogating to themselves the right to decide about the life and death of their subjects.

Thus, in the beginning, these regional ruling structures achieved a “status,” a state, *état*.

The Infante Peter of Aragon talks in his “Fürstenspiegel” (“Prince’s Mirror”) of 1355, of a “conservative status.” The same formulation is used in a letter by Petrarch to Francesco of Carrara, about the administration of the community. Also, English authors of the Fourteenth century use the word “status” for “state.”

The only challenge to the universal hierarchical order of the Holy Roman Empire, was the Tenth- and Eleventh-century establishment of Norman monarchies on the out-

skirts of the Empire—in western France, England, Sicily, Russia, and Poland—which ignored the philosophy of the power of the Empire, and based themselves on a strong administration, their own nobility, a mercenary army, a jurisdiction, and a coherent financial and trade policy. The Norman historian Orderic Vitalis (1075-?1143), for example, did not entertain the idea in his work, that the Holy Roman Empire of his time continued the Roman Empire of the past, but assumed instead that it was the Normans who were the carriers of world historical development, for which divine providence had selected them. This was a peripheral development, but it did not go unnoticed.

The two individuals who can be called the pioneers—not prophets, but pioneers—of the modern state, were John of Salisbury (1120-80) and Guillaume d’Auvergne (?1180-1249); their social teaching was, however, still based on a cosmological order. John of Salisbury wrote the so-called *Policraticus*, a work of state theory, “About the vain worries of the courtiers and the influence of the philosophers,” which is one of the few timeless works of state science. But the “res publica” is still, for him, embedded within a *spiritual* hierarchy. The same is true for Guillaume d’Auvergne, Bishop of Paris, who in 1235 wrote of the “state of the angels”

being a model for the commonwealth on earth.

These two books were the first social theory ever, and crucial for the new theory of the state in France, in which the tendency for a developing nation-state was most advanced.

The *Policraticus*, taught by the Cistercian monk Heliand von Froidemont and Guillaume d’Auvergne, influenced Gilbert of Tournai, Thomas Aquinas, Bonaventura, and Aegidius Colonna of Rome, who wrote the first modern theory of the state.

John of Salisbury emphasized political justice, as being an important step in the evolution of political theory. Aegidius Colonna was the first to speak of political theory as an independent science, and he was the educator of Philip the Fair (1268-1314).

Emerging National Sovereignty

The first sovereign nation-states emerged in England, with Henry II Plantagenet (r. 1154-89); in France, with Louis IX (St. Louis) (r. 1226-70); in Sicily, with Frederick II Hohenstauffen (r. 1212-1250); and in Spain, with Ferdinand III (el Santo), and his successor, Alfonso the Wise (r. 1252-58).

These new state formations were all based on similar features. First, a clearly ordered jurisdiction. Second, a



France's Louis IX (St. Louis), like other pioneers of the nation-state, established the primacy of royal courts over those of the nobility and Church.

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Holy Roman Emperor Frederick II Hohenstauffen was the first to appeal to reason, rather than merely demand obedience of the rulers of sovereign states. Shown is a contemporary seal.

The Granger Collection, NY

St. Thomas Aquinas. His father and brothers helped Frederick II found the Sicilian state; he developed the idea into a general theory.



The Granger Collection, NY

England's Henry II. A new legal code, issued in the King's name, helped consolidate the state power structure.

Detail of wood engraving, c. 1230-1260.



The Granger Collection, NY

territorial structure according to jurisdictional districts. Third, the superiority of royal courts over those of the nobility and Church. Fourth, the strengthening of royal courts, and the issuance of new laws and institutions in a code promulgated in the king's name.

In England, France, and Sicily, an order of financial administration developed parallel to the jurisdiction.

The result of these reforms in these four states was, that it was the new power structure which had control over life and death, it being exclusively in the hands of the leadership of the state, and no longer in the hands of the lesser nobility.

There was a consolidation of power internally, and at the same time, a declaration of sovereignty toward the external. What that meant was, first, not to recognize any higher earthly power; second, the leadership of an emperor in his own territory; third, to be a coherent community.

This notion, not to recognize any higher earthly power, suddenly became *the* leitmotif of the transition from the Thirteenth to the Fourteenth centuries, and this became one of the most powerful ideas in the development of modern Europe!

At the beginning of the Fourteenth century, in the fight between Pope Boniface VIII and Philip the Fair, this became the fighting slogan of the royalist party. It led to the summoning of the Estates-General in 1302, and the Act of 23 February, in which Philip declared his intention to disinherit his sons, if they were ever to recognize any higher authority in France than God.

Alfonso the Wise in Spain, and Frederick II in Sicily, adopted the same formulation.

In Sicily, interestingly enough, it was the father and brothers of Thomas Aquinas, who helped Frederick II found the Sicilian state. Thomas Aquinas developed this idea to a general theory.

A counter-tendency was the theory of the "emperor status" of the Pope, as a temporal power. The main theoretician of this was Aegidius Colonna, and his ideas were taken up by Pope Boniface VIII, who expressed them in the Bull *Una Sancta*.

There is an anecdote told—I don't know if it's true, but the anecdote is told—that Boniface once climbed the stairs of a church in Rome, and shouted at people: "*Ego Caesar, ego Imperator!*" Which, obviously, was absolutely not the intention of what Popes are supposed to be.

On the other side of the conflict, you had the emerging national sovereignty, where, for the first time, a shift occurred, such that in the state, not only the interest of the king, but the common good, was a concern.

One step in this direction was the writing of Alfonso the Wise, that the king, as the representative of God, has to guarantee Justice and Truth for the people he governs.

The notion of sovereign equality was first mentioned by the philosopher and poet Ramon Llull (Lullus) at the end of the Thirteenth century. He also had the idea of a "*persona communa*," in whom goodness, greatness, and stability for the community, are united. For Llull, however, in the Thirteenth century, this *persona communa* was still the world emperor.

Frederick II Hohenstauffen was the first to appeal to the reason of the rulers of the sovereign, *equal* states, instead of just demanding obedience of them.

A truly revolutionary breakthrough occurred, when the Dominican philosopher John Quidort of Paris elaborated the idea of a multitude of equal, independent states and the idea that there could be peace in the world, only if there were no Emperor. Only in a system of juridically equal states, each limited to its own territory, could there be peace and concordance. The drive for world dominion, the mere idea of being greater than others, necessarily brings non-peace, he wrote. This represented a decisive step in the evolution of the modern international law of peoples.

Quidort's writings were ammunition in the fight of France against the demands of papal power. The then-famous lawyer Peter Dubois wrote in 1305 in a leaflet: "In my view, there is rarely a reasonable person, who would like to believe that, concerning temporal matters, there should be one single ruler in the whole world, who would govern everything, and to whom all ears would listen; because if you drive toward such a condition, there will be wars, riots, and fighting without end, and no one could suppress it, because there are too many people, too great distances and differentiations of the individual countries, which are too big, and the natural inclination of people for opposition and dissonances is too large."

In this entire period, the tension between the Empire and the emerging states was unresolved, and a "*concordantia discordantium*" was the essential conflict of the time. The best thinkers and most advanced kings of the Thirteenth and Fourteenth centuries tried in vain to find a solution to overcome this tension.

The poet Dante is an illustration of Lyndon LaRouche's argument, that the beautiful visions of poets are often the inspiration for the politicians; such was the vision in his *De Monarchia*, which portrayed the ideal of world community, where the deep longing for peace was realized.

It is interesting that, long before this, what Professor von der Heydte calls the "birth-hour of the modern nation-state," actually went through its labor pains. Saint Augustine wrote in the *City of God*, that only an evil state would be imperialistic—a clear reference to the Roman Empire—and that well-meaning men would not derive happiness from the *size* of their empire. Because its vast

extent, would only have grown because of its injustice, against which justified wars would have been fought; whereas, the empire would be small, if there were calm and peaceful neighbors. And thus, according to Augustine, smaller states would be better than large, never-satisfied empires.

Extremely important for Alfonso the Wise, Llull, and Thomas Aquinas, was the question of justice in the state. Aquinas even said, that life in society cannot exist, if there is not someone on the top of the state, concerned with the *Bonum Communitatis*, the common good. And that is exactly what the problem is with globalization today—that at the top of these supranational institutions, they could not care less for the common good.

The *Concordantia catholica* and Political Freedom

What inspired the different philosophers, poets, and state theoreticians who contributed to the idea of the international law of peoples, and of national sovereignty, was a passionate drive for peace; and, justice and love were regarded as the preconditions for peace. Especially today, when there is no peace in many areas of the world, when globalization causes wars and threatens a new global Dark Age, it is of the utmost importance to understand, that *it was the desire for peace, which stood at the beginning of the development of national sovereignty and international law.*

The philosopher whose political theory represented a grand design for a functioning peace-order in the world, who resolved the “*concordantia discordantium*,” was Nicolaus of Cusa, the greatest thinker of the Fifteenth century. His *Concordantia catholica* (*Catholic Concordance*), a paper written for the Council of Basel, not only contains in Books I and II, ideas about the reform of the Church, but in Book III, an argument for the reform of the Holy Roman Empire. Nicolaus gives here, for the first time, a concrete institutional form to the constitutional demands on the ruler, which was a major step in the direction of modern constitutionalism, and even the separation of powers.

Completely new in Nicolaus’s approach, was the idea of natural freedom and equality, as the basis

for participation in government. Here, we have the beginning of the political rights of all people!

Nicolaus writes in the *Concordantia*:

Therefore, since all are by nature free, every governance—whether it consists in a written law, or in living law in the person of a prince . . . can only come from the agreement and consent of the subjects. For, if men are by nature equal in power and equally free, the true, properly ordered authority of one common ruler, who is their equal in power, can only be constituted by the election and consent of the others, and law is also established by consent.

This was totally revolutionary—that the rulers and the governed are equal and equally free. And, at another place, he says, that what is true for the German, is also true for the Ethiopian! Nicolaus really meant human rights as a universal principle.

In Book III, he writes:

Natural laws precede all human considerations, and provide the principle for them all. First, nature intends every kind of animal to preserve its physical existence and its life, to avoid what could be harmful, and to secure what is necessary to it. For the first requirement of essence is that it exist.

If one were to write a new constitution for a world of sovereign nation-states, this definition of Nicolaus’s could go into it completely unchanged, because, first off, people have to exist. He continues:

But, from the beginning, men have been endowed with reason, which distinguishes them from animals. They know, because of the existence of their reason, that association and sharing are most useful—indeed, necessary for their self-preservation, and to achieve the purpose of human existence.

And therefore, Cusa argues,

Human beings have built cities and adopted laws to preserve unity and harmony, and they established guardians of all of these laws, with the power necessary to provide for the public good.

“De concordantia catholica” (“The Catholic Concordance”). Written in 1433, it called for reform of both the Church and the Holy Roman Empire. (Frontispiece, Book III.)



Courtesy of Dr. Helmut Gestrich, Cusanus-Gesellschaft, Bernkastel-Kues

Nicolaus then, in the clearest way, establishes the principle which separates the sovereign nation-state from the previous oligarchical forms of society, by defining the only legitimate source of power, as caring for the common good, to which all or a majority of people have to consent. He says,

All legitimate power arises from elective concordance and free submission. There is in the people a divine seed by virtue of their common equal birth and the equal natural rights of all men, so that the authority—which comes from God, as does man himself—is recognized as divine, when it arises from the common consent of the subjects. One, who is established in authority as representative of the will of all, may be called a public or common person, the father of all, ruling without haughtiness, or pride, in a lawful and legitimately established government.

While recognizing himself as a creature, as it were, of all of his subjects as a collectivity, let him act as their father, as individuals. That is the divinely ordained marital state of spiritual union based on a lasting harmony, by which a commonwealth is best guided in the fullness of peace toward the good of eternal bliss.

Now, is that not beautiful? I really enjoy reading this, to see that a constitution can be based on coherence with the common good, but that the ruler is also asked to act like a father to all, which obviously requires love.

Nicolaus then defines the representative system, in which the elected representatives enter a reciprocal legal relationship with both the government and the governed. He says:

For this purpose [the public welfare], the ruler should have the best qualified of his subjects chosen from all parts of his realm, to participate in a daily council with him. These counsellors ought to represent all the inhabitants of the realm. . . . These counsellors ought constantly to defend the good of the public which they represent, giving advice and serving as the appropriate means through which the king can govern and influence his subjects, and the subjects on proper occasion can influence him in return. The great strength of the kingdom comes from this daily council. The counsellors should be appointed to this task by agreement in a general meeting of the kingdom, and they should be publicly bound legally by oath to speak out openly for the public good.

Now, you heard yesterday in the panel on the fight for D.C. General Hospital, a living example, if all the citizens would publicly speak out for the common good as was done by Charlene Gordon or by Dr. Alim, then the state would function; and that is exactly what we have to accomplish.

Nicolaus wrote this groundbreaking work in 1433, and it took another 343 years, until these ideas of a representative system as the *only* practical way to defend the

inalienable rights of the individual, were formulated in the American Declaration of Independence and the American Constitution.

But, for Nicolaus, this was only his first major work; his real breakthrough was still to come.

Gifts of the Italian Renaissance

That Nicolaus was educated by the Brothers of the Common Life is quite probable, although it cannot be securely established. A great deal is known about his relationship to the pinnacle of the Italian Renaissance, which both influenced him, just as he inspired the best thinkers, philosophers, statesmen, and Popes, with his groundbreaking philosophical method, which was, on the one hand, in the Platonic tradition, but which also added a spectacular new dimension to the history of philosophical thought.

Nicolaus studied from 1417 to 1423 in Padua, so he was there when he was between 18 and 24 years old. Already, here, he came in contact with the most precious tradition of European civilization, which had been revived in Italy with Dante, Petrarch, and Boccaccio, who had started a *de facto* war against the dogmatic, scholastic teaching which dominated much of the academic life of Europe, by consciously reviving Plato and Classical Greek thinking.

Petrarch pointed out, that Plato's teachings were coherent with Christianity, while Aristotle's was not; He also attacked the influence of Averroes. Coluccio Salutati (1331-1406), who knew Petrarch, was, like all humanists, an avid collector of manuscripts; he became chancellor of Florence in 1375, the year of Boccaccio's death. Leonardo Bruni, who translated several of Plato's writings, and was, from 1427 onward, the chancellor of this city, and Poggio Bracciolini, who was chancellor from 1415 to 1422, were both pupils of Salutati, and represented the continuation of the Platonist, anti-Aristotelian tradition. Bracciolini had known Cosimo di Medici since the Council of Constance; Cosimo had also befriended Nicolaus there.

Another group of people, with whom Nicolaus was in contact during his studies in Padua, were his close friend Giuliano Cesarini, Ambrogio Traversari, and Aeneas Silvius Piccolomini, later Pope Pius II, all of whom were in this same tradition of Dante, Petrarch, and Boccaccio.

In Padua, Nicolaus also started his lifelong friendship with Paolo dal Pozzo Toscanelli (1397-1482), who wrote the famous letter to Fernão Martins, where he argued, that one could reach China and India by the sea route going west—which later was used by Columbus, and led to his discovery of the Americas. Through him, Nicolaus had also close contact with the great artists Leon Battista Alberti and Filippo Brunelleschi.



Alinari/Art Resource, NY



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The Granger Collection, NY

The great Italian poets Dante Alighieri, Petrarch, and Boccaccio (shown left to right) launched a de facto war against Aristotelian scholasticism, consciously reviving Plato and the Greek classics.

The translations by Brunni, Traversari, and others, of Plato and Aristotle, had already provoked profound debates about the Good, the value of poetry, and about the nature of the community, which represented the intellectual environment during Nicolaus's studies in Padua, which he clearly developed to a higher level in his *Concordantia catholica*. But, from 1437 onward, Nicolaus, mediated by his friend Cesarini, took over important functions in the Vatican, and from this moment on, the history of Nicolaus, that of the Renaissance Popes, and the cultural Renaissance, became extremely closely intertwined. Already in 1437, Nicolaus travelled to Byzantium, where apart from his diplomatic mission to accompany and bring back the delegation of 700 representatives of the Orthodox Church, including the Byzantine Emperor and the Patriarch, he was successful in finding the documents proving that the formulation of the "Filioque"—namely, that the Spirit emanates equally from the Father and the Son—had already been part of the creed in the early councils. As we have published, this proof played a very important role in the unification of the Church in the Councils of Ferrara and Florence.

Nicolaus had the closest contact with the 83-year-old Georgios Gemistos Plethon, who accompanied the Byzantine Emperor as an advisor. Plethon at that point knew the entirety of Plato, and naturally Proclus, and as a statesman in his own right, he intended a Renaissance based on Plato for Greece. In 1439, while in Florence, he wrote a sharp critique of Aristotle: Aristotle had misunderstood the Platonic ideas, he had denied God's creation of the world, and the existence of Providence, as well as the immortality of the soul, he had undermined ethics, and his theory was irreconcilable with Christianity.

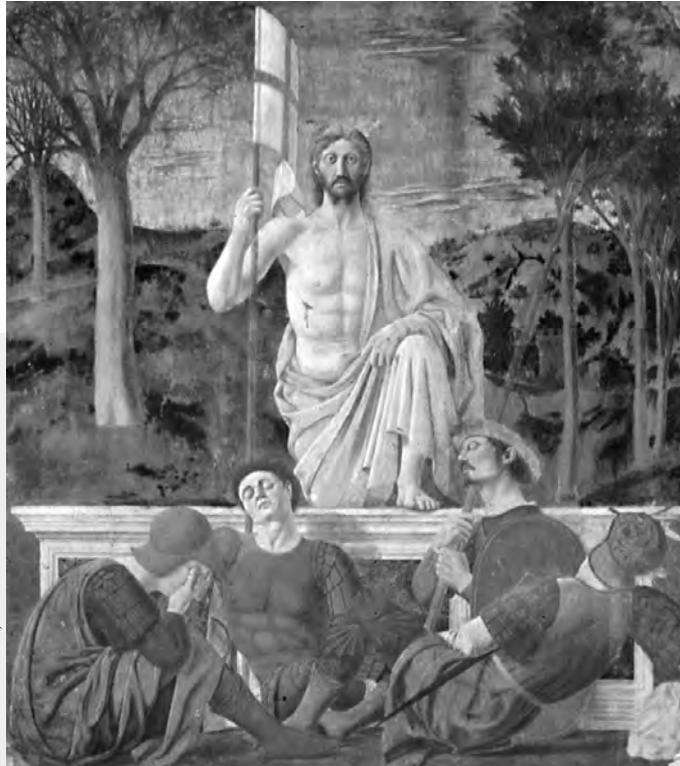
Plethon, and Bessarion, the Archbishop of Nicea who also wrote polemically against Aristotle, sparked total excitement about Plato in Ferrara, and it was especially the famous doctor Ugo Benzi from Sienna, who was teaching in Padua during Nicolaus's stay there, organized these debates [SEE Figures 1 and 2]. Cesarini, to whom Nicolaus had dedicated the *Docta ignorantia* (*Learned Ignorance*), was the host of many of these lectures about Plato, which excited one of his listeners, Cosimo di Medici, in such a way, that he decided to found a Platonic Academy in Florence, and asked Plethon to translate the entire corpus of Plato.

Nicolaus had also direct contact with Cosimo di Medici, and Petrus Leonius (Pierleoni) from Spoleto, who was the personal doctor of Lorenzo di Medici, collected several of Cusa's writings and circulated them further.

Just to illustrate the unbelievable intellectual and cultural environment in which Nicolaus worked: He had close contact with Tommaso Parentocelli, later Pope Nicolaus V and the founder of the Vatican library, and Aeneas Sylvius Piccolomini, later Pope Pius II, and also Niccolò Albergati; he saw the works of Alberti, Fra Angelico, Donatello, Piero della Francesca, and Paolo Uccello, who had finished his frescos in S. Maria Novella in 1430, where Masaccio had completed his "Trinity" fresco, painted in perspective form, in 1427 [SEE Figures 3 and 4].

Piero della Francesca was in Florence from 1439 on. Ghiberti created the bronze doors to the Baptistery in Florence, his "Gates of Paradise" [SEE FIGURE 5]. Brunelleschi, in 1417, had created the first model of the cupola for the Dome of Florence Cathedral, which was completed in 1437, and already in 1429 he had made new constructions of San Lorenzo and the Pazzi Chapel in San Spirito [SEE Figure 6].

The Classical Renaissance of Cusa's Italy



SCALA/Art Resource, NY

FIGURE 3. Piero della Francesca, "The Resurrection of Christ," Sansepolcro, Museo Civico (1455-1465).



FIGURE 2. "Journey of the Magi" murals by Benozzo Gozzoli adorn the walls of the Medici Palace in Florence. See Figure 1, p. 14, and front and back covers, this issue.





FIGURE 5. Lorenzo Ghiberti, "Gates of Paradise," Baptistery doors, Cathedral of Florence (1430-1437).

FIGURE 4. Masaccio, "The Trinity," Church of S. Maria Novella, Florence (1426).

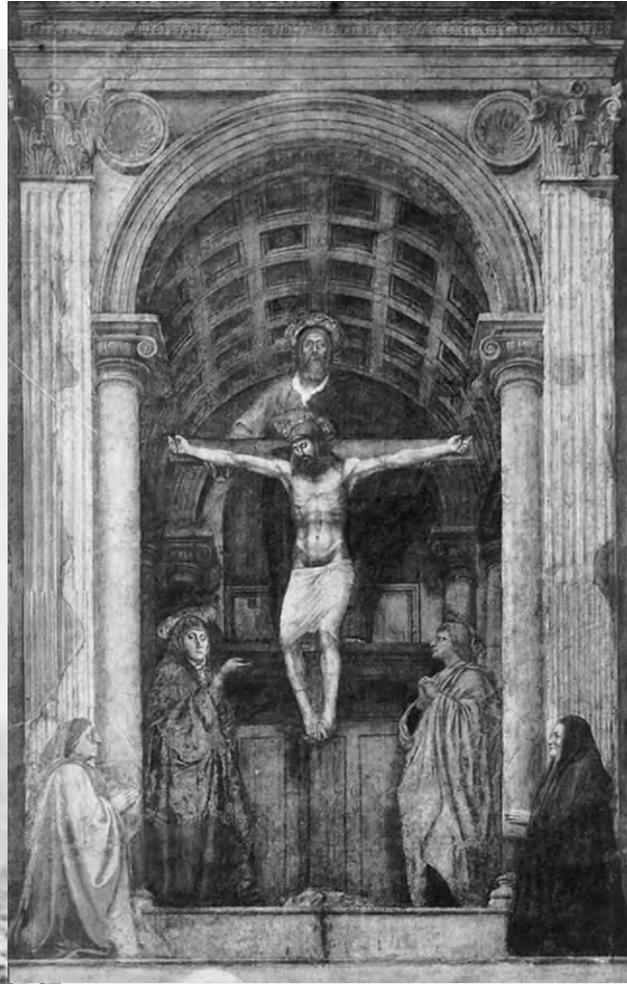


FIGURE 6. Cathedral of Florence. The great Dome, designed by Filippo Brunelleschi, was the architectural and engineering marvel of the Renaissance. It was completed just before the 1437-39 Council.

Since the Italian, and especially, Florentine, Renaissance is a prime model, to study how a civilization can overcome a Dark Age, it is useful to look at how the different influences came together. Dante, Petrarch, and Boccaccio's influence created the foundation. From the beginning of the Fifteenth century, several great artists and philosophers created a new humanist movement. But it was the Councils of Ferrara and Florence, especially the contact with the Greek Platonic scholars, which gave this new movement its decisive boost.

The 'Coincidence of Opposites'

This was the intellectual and cultural environment in which Nicolaus of Cusa made a conceptual breakthrough. He himself writes, that on the way back from Constantinople 1437-1438, he experienced an enlightenment, which allowed him to see all problems in a completely different light.

This was his unique "coincidence philosophy." He repeatedly stressed, that he was teaching something which had never been thought before. He insisted, that not one philosopher before him recognized the method of thinking embedded in the *coincidentia oppositorum*. Aristotle had put forward the idea, that contradictory statements could not be truthful at the same time. In a letter of Sept. 14, 1453, Nicolaus wrote, that the disallowance of contradictory statements had been the common axiom of all philosophy; Aristotle had said so merely in the most explicit form. All the philosophers had failed, the "great Dionysius" being the only exception in a couple of places.

If one takes the totality of Nicolaus's attacks on Aristotle together, there isn't much left of him. Nicolaus reduces him—the absolute master in the teachings of the scholastics in almost all universities—to someone who has the wrong method, who cannot find anything, while restlessly running back and forth, incapable of understanding Platonic ideas.

In the "Apologia Docta Ignorantia," a defense of his *Docta ignorantia* against the Heidelberg professor Johannes Wenck, who had accused him of pantheism, heresy, and confusion, Cusa writes:

Nowadays, the Aristotelian tendency dominates, which finds the coincidence of opposites, which one has to acknowledge to find the ascent toward mystical theology, to be a heresy.* To those trained in this school, this approach seems to be totally nonsensical. They refuse it, as something completely opposite to their intentions. There-

* The idea of mysticism during Cusa's time, did not mean what it means today; it merely meant a complete devotion to the truth.—HZZL

fore, it would be close to a miracle—as well as it would be a complete transformation of the school—if they were to abandon Aristotle, and reach a higher level.

Nicolaus then quotes Hieronymus quoting Philo, in basically making the point that logic, the Aristotelian method of thinking, is no better than the understanding (*ratio*) of an animal. Because, all understanding beings, humans and animals, are able to draw conclusions:

The methodological approach [i.e., the Aristotelian level of understanding—HZZL] is necessarily limited between the starting point and the final point, and these opposing opposites we call contradictions. Therefore, for methodologically-proceeding thinking, the goals are opposite and separate.

Therefore, on the level of understanding, the extremes are separated, like the notion of the circle, which says that the center cannot coincide with the circumference, because the distance from the center point to the circumference is always the same.

But, on the level of the reasonable mind, who sees that, within unity, number, within the point, the line, and in the center, the circle is folded in, the convergence of unity and multiplicity, point and line, center and circumference, are reached in the vision of the mind, without methodological back-and-forth: That, you could see in the book "*De Coniecturis*" ("On Conjectures"), where I showed that God is even above the coincidence of the contradictory opposites, because, according to Dionysius, he is the opposite of opposites.

It is not very respectful, that Nicolaus talks here about the "methodological back-and-forth" of the Aristotelians! And what does he mean by their intentions?

Then, Nicolaus continues:

After these words, the master reminded me to note, that learned ignorance, like a high tower, brings everyone to the level of vision. Because he, who is standing up there, has an overview of everything, for which the one moving over the field, looking for different traces, is searching; he also sees, how far the one searching, is getting closer or further away from what he is looking for. In this way, learned ignorance, which belongs to the domain of the reasonable mind, judges the methodological approach of the thought process of the understanding.

The metaphor of the tower in which reason is self-conscious about itself, the searcher, and that which is searched, is a pedagogical device to help the mind think in an elevated way from above.

Another device is in "*De Beryllo*" ("On Beryllus"), the idea that "coincidence thinking" is like a lens, through which one can see that which was previously invisible. "Coincidence thinking" is not what is seen, it is the method of thinking.

In “*De Beryllo*,” Nicolaus describes the sensuous world as a book written for us, even created for us, in such a way that we can understand it from the way our cognition works. Nicolaus develops a truly subjective, cognitive approach here.

Other thinkers before Nicolaus had conceived the idea of a unity which precedes all contradictory statements. What makes “coincidence thinking” and the metaphor of beryllus as a lens different, is to show, how contradicting substantial causes coexist in a principled connectedness, before they separate into their differentiation.

If we have the beryllus, we see the opposites “*in principio convexio*,” before they exist in their duality. In the rectilinear, the Minimum of the acute angle, and the Maximum of the obtuse angle, coincide; before they separate into their contradictoriness, they are together in the rectilinear.

As we will see, this is no academic exercise; rather, Nicolaus is developing a method of thinking here, which has the most fundamental significance for the solution of political and religious problems. And, because Aristotle does not have a beryllus, he cannot think in an efficient way!

In the “Beryllus,” Cusa escalates his attacks on Aristotle, even though he—Aristotle, that is—had talked about a third principle of natural occurrences, namely, the “*steresis*,” the “*privatio*” or “*Beraubung*.” But this had been merely an empty construct, it had not explained anything, only the absence of something. And, after Aristotle had introduced this worthless explanation, says Nicolaus, his scientific research got stymied. So Nicolaus concludes, that Aristotle therefore no longer has any significance for contemporary scientific studies! Which, at that point, was an absolutely, truly revolutionary statement.

Evolution from Above

There is also a very specific evolutionary conception that Nicolaus’s “coincidence thinking” has for the evolution of the universe, which emphasizes its unity. But, in a radical difference to absolute unity and “biggest-ness” (“*maximitas*,” which is God), the “*unitas universi*” is a “contracted multitude” (“*unitas contracta*”), the incarnation of “unified multitude” (“*maximum contractum*”).

In this universe, there exists a hierarchical order of higher and lower species, which develop into each other for multiple individual differentiations, but which are nevertheless each separated by a “species gap.” Nicolaus says, that no animal, by itself, can become reasonable. But, if some animal were educable in such a way (*capax*) that it could develop insight into the insight of man, and would prove this through its actions, then it would no longer be just an animal.

Nicolaus says, that no individual of any kind, so long as it

is no more than an individual of its kind, has actualized the maximum perfection of its capacity. For man, this means that he has to be “snatched up,” and mixed with the spiritual nature. Analogously, the inorganic is in relation to the plant, and the vegetative to the animal-like. The potentiality of the lower only realizes its perfect fulfillment through its introduction into a higher principle of being.

But the fascinating thing is that, what the late Professor Haubst calls the “biogenetic law of evolution,” the “maximization principle” of Cusa, does not work from below upwards. Evolution is not understood as starting with the most primitive forms, to then become more differentiated, which is what today’s mechanistic theory of evolution suggests, but it occurs from above. In “*De Mente*” (“On Mind”), Nicolaus develops that God’s knowledge only descends downward into the nature of the mind; further down in the scale of things, it only descends through the mind. “*Mens*,” the mind, is the image of God, but at the same time, the original image of all successive creatures.

This puts man in an extraordinary position in the universe: The world-creating mind—God—has only one avenue to the world, the human mind! This is not only a theory of cognition, this is a theory of world formation, of genesis, in which the mind has an irreplaceable mediative role! This is exactly the same idea, as when LaRouche says, that the universe “obeys” the cognitive powers of the mind!

Professor Haubst even reads Cusa in this way, that for Nicolaus the universe finds its fulfillment of meaning only in the designation of man. In that sense, for the universe, man is irreplaceable. The universe needs man to have meaning. Without man, the universe would be only a torso. If the universe is not merely to end somehow, its sense designation and perfection can only be the divinely creative activity of the human mind.

In “*De Mente*,” Nicolaus writes, that number is a coincidence of unity and multiplicity. Here, we see that he does not restrict “coincidence thinking” to theological questions. These numbers are constitutive, because the eternal mind has created the world in a number-like way, as a composer composes. It is mind, as mind, which creates number, and everything else. The world is the music of the eternal mind, which causes proportions, and therefore the beauty of the things of the world. We recognize an idea here, which we find again in Kepler.

In “*De Mente*,” Cusa describes the infinite perfectibility of the mind, which creates motions bringing order into the world, and in this way finds out its own laws of cognition.

As I said, this method of thinking, “from above,” from the “*coincidentia oppositorum*,” is a universal methodological concept, applicable to all aspects of life. The most far-reaching discussion of this idea we find in “*De visione dei*” (“On the Vision of God”), a book written for the monks

of Tegernsee, who were his close friends. It is probably the most intimate of all of Cusa's writings [SEE Figure 7]. Plato had made the argument that, in order to be truly free and philosophize, you have to be among friends, because if you are together with people who are not your friends, you cannot speak freely, you have self-protection and guard yourself, and that blocks the ability of the mind to really come to the truth. So Nicolaus wrote this book "*De visione dei*" for his friends, the monks, and it clearly represents his innermost thoughts. Just because it was so intimate and loving, this book was already in the Fifteenth century one of the most read of his writings—it reminds me very much of the spiritual exercises of the Pope, described by the Vietnamese Bishop Nguyen Van Thuan. It is about the question, how to train the mind to think from the level of the highest truth. In this case, he uses the notion that God, the "opposite of opposites," is "behind the wall" of the *coincidentia oppositorum*; that you have to elevate your mind to that divine level, to be able to tackle all problems from the highest level descending.



Blauel/Gnam—ARTOTHEK

FIGURE 7. Albrecht Dürer, "Self-Portrait in a Fur Cloak" (1500). This self-portrait ("as Christ") is thought to have been inspired by "*De visione dei*," where the image of a portrait whose eyes seem to focus on each of a group of monks standing before it, is presented as a metaphor for God's relationship to each individual man.

Let me begin with a quote from the Cusa scholar Erich Meuthen, where he reports how descriptions of the fall of Constantinople were received in the West:

First of all: Horror about the carnage. The West's image of the Turk was painted as a shrill mixture of blood-thirst, bestial cruelty, and perversion. The reports from Constantinople corresponded to what was considered to be

certain anyway, yes, it could be aggravated: Blood was flooding the ground, as if it had rained, like water in the streets, blood was flowing. Children had been killed before the eyes of their parents, noble men slaughtered like animals, priests mutilated, monks tortured to death, holy virgins raped, mothers and daughters dishonoured. It is reported that Mohamed the Conqueror forced the Emperor's daughter in his bed on the night of his victory. He wishes to convert her to his belief. She stands firm. Now, he drags her to the Hagia Sophia, toward a statue of the Madonna, which is used as a chopping block for executions. He shows her, how Christians are being beheaded here, rips her clothes off, and orders the girl to be beheaded on top of the Madonna, and sends her head to Emperor Constantine.

Desecration of man and God in one. Churches are vandalized, altars profaned, reliquaries dispersed to the winds, the Holy of the Holies desecrated,

and so on.

This happened in the Fifteenth century, but it is happening today in the Middle East and many other places, in Africa, in the Balkans. And just now, just to help you to celebrate the birthday of Nicolaus, the Pope went on this truly historic mission to the Middle East, and two days ago he made a statement, and he said, Look, I ask for forgiveness for the crimes and the cruelties committed by the Crusaders in the Thirteenth century. Which I think is a truly noble gesture, that he is almost on a personal mis-

The Peace of Faith

Complementing "*De visione dei*," one must see another of his books, *De pace fidei* (*On the Peace of Faith*), written in the same year, 1453. Here you can see, that "coincidence thinking" is not some esoteric, far-away or mystical (in the modern sense) way of dreaming, but has the most dramatic political implications. For, on May 29, 1453, Sultan Mohamed II, who was known as "the Conqueror," had his most spectacular success: the takeover of Constantinople.

The West saw the fall of Constantinople as a total threat. Even the humanist Aeneas Silvius Piccolomini wrote to Pope Nicholas V, saying his hand trembled while writing these words, and he could not speak for the pain: "What a misery for Christendom! The fountain of the Muses has dried out. This was the second death of Homer and Plato." Reactions to the reports of what happened in Constantinople were those of terror.

sion to counter what is being done by Bush and Sharon, to bring peace to the Middle East, to make an effort to overcome this terrible danger of war, of which he is absolutely aware. Today, he's going to a mosque, which houses the tomb of John the Baptist. It's the first time that a Pope has ever gone to a mosque. So, you know, this is not theoretical, academic stuff from many centuries away; this has the highest political significance if we want to find peace.

Now, modern historians refute these horror stories, and say that Mohamed II did not intend to destroy the city. On the contrary, they say that he reconstructed pub-

lic buildings, and that he brought groups of Muslims, Christians, and Jews into the city for resettlement, and sponsored the arts and the sciences. That may be historically true; I only mention this quotation, to show you that these horror stories were the image the West had at the time of what had happened.

It is all the more amazing, to see the elevated, lofty view which Nicolaus presents in *De pace fidei*, about the peace of belief, of faith, knowing it was written under the impression of the terrible reports I mention above.

Nicolaus begins *De pace fidei* with the following words:

Pope John Paul II on Nicolaus of Cusa

In a beautiful message sent to Bishop Leo Schwarz in Trier, Germany on May 15, on the occasion of the 600th birthday of Nicolaus of Cusa, Pope John Paul II pays homage to Cusanus in a way no Pope has done before him. The Pope writes, "Nicolaus Cusanus, with his world of ideas, despite the distance of time, has a message to give to all those who on the first Pentecost asked St. Peter: 'What should we do?'" The Pope stresses that the life of Nicolaus Cusanus can give us some guiding principles in answer to that question today.

He calls him "this great personality of the Church," who received his main education in Heidelberg, Padua, and Cologne, and whose heart was filled with the desire to serve the Church. The Pope recounts Cusanus's participation in the Council of Basel, and how he broke from the conciliarism of that Council to engage in many "diplomatic missions as well as initiatives to reform the Church": "He was member of the small delegation which went to Constantinople and which brought the Greek delegation—with the Emperor heading it—to the Union Council in Ferrara and Florence."

When Basel elected an anti-Pope, Cusanus, the Pope writes, urged the German dukes to give up their neutrality and to recognize Eugene IV as Pope. He became a Cardinal in 1448 and made trips as Papal legate throughout Germany to promote reforms of the Church and the monasteries. Aside from being an "excellent organizer," the Pope says, Nicolaus Cusanus understood himself as a "spiritual man," and he completely sacrificed his life as somebody living in the succession of the "Good Shepherd." He was actively

engaged in "exploring the treasury of the Holy Scripture and interpreting the Biblical word with the help of theological and philosophical ideas, so as to make them transmissible in a pedagogical way."

He mentions Cusanus's role in the negotiation with the Hussites, his efforts to end the Hundred Years War between France and England, and his 1459 proposal for General Reform of the Church. He then stresses that one cannot talk about Cusanus, without "mentioning the gigantic scientific work which he left behind," his library in Bernkastel-Kues being a living example of this: "Through his genial ideas, the Cardinal was inspired to think further ahead, and he laid out ideas which are efficient up to this day, or merit being taken up again, in Astronomy, Mathematics, Natural Sciences, Medicine, Geography, Law, but especially in Philosophy and Theology." Of his many writings, the Pope mentions "On the Hunt for Wisdom."

Christ, the Pope stresses, was the main axis of Cusanus's thinking. The Pope uses the image of two elliptical points: the triune God and Jesus Christ, God-become-man. It was this message, the Pope says, which Cusanus wanted to transmit to non-Christians such as the Muslims and Jews. He "looked for a common basis in many religions while respecting the diversity."

Lastly, the Pope emphasizes the quality of "*Caritas*," in the spirit of "*Devotio moderna*," in Cusanus, which is demonstrated by his Founding of the "*Armen Hospiz*" (House for the Poor). "What Cusanus left behind" is an "obligation for the Church on its way into the third millennium," the Pope concludes. —WFW

News of the atrocities which have recently been perpetrated by the Turkish king in Constantinople and have now been divulged, has so inflamed a man, who once saw that region, with zeal for God, that amongst many sighs he asked the Creator of all things if in His kindness he might moderate the persecution, which raged more than usual on account of diverse religious rites. Then it occurred that after several days—indeed on account of lengthy, continuous meditation—a vision was manifested to the zealous man, from which he concluded that it would be possible, through the experience of a few wise men who are well acquainted with all the diverse practices which are observed in religions across the world, to find a unique and propitious concordance, and through this to constitute a perpetual peace in religion upon the appropriate and true course.

Courtesy of Dr. Helmut Gestrich, Cusanus-Gesellschaft, Bernkastel-Kues



Manuscript title-page, *De pace fidei* (On the Peace of Faith), written in response to the fall of Constantinople in 1453.

due to some hitherto undiscovered flaws in the self-understanding of the religions. One mistake had been not to differentiate between the prophet, and God himself; secondly, they had mixed up traditions to which they were accustomed, with the Truth.

So, basically, the differences exist merely in rites, and not in what is essential.

Now, this is a truly mind-boggling approach, because, who could possibly argue, that the prophets were on the same level as God? So, if you say that the differences are only because of the different circumstances of the different prophets, who are not identical to God, and that the different traditions are not the same thing as the Truth, it is obviously easy to find a solution.

Then, the oldest of the participating philosophers, a Greek, asks: But, how should we bring the manifold of religions to one unity, since our people have defended their religion with blood, and they hardly will be willing to accept a new, unified religion?

The divine Word answers: You should not introduce a new religion. But, you should yourselves comprehend, and then show to the peoples, that the true religion is presupposed *before* all other religions. The unity is *before* the separation occurs.

Since the divine Word is talking to the wise men as philosophers, they can all agree, that there is only one wisdom. He does not talk to them as representatives of different religions, and therefore he can reach them on the level of reason, on a different level.

The peace-bringing new unity of religion is not—Nicolaus is very emphatic on this—some synthetic new belief, but what reason tells all who become conscious of its premises. Thus, the Greek philosopher reacts excitedly about the “*spiritus rationalis*,” which is capable of “*capax artium mirabilium*”—the ability of the mind to participate in the most beautiful creations of art—and what follows is a hymn on the perfectibility of the human spirit. If this spirit is oriented to wisdom, then man gets closer and closer to it. We never reach absolute wisdom, but we

Cusa then has representatives of seventeen religions and countries participate in a dialogue with the “divine Word,” asking for help, because, they say, “This rivalry is on account of You, whom alone all venerate in all that they seem to adore.”

So, these representatives of seventeen religions and countries go to God and say, Look, we are only killing each other because of you, because we all think that we do your work. Please help us to overcome this terrible contradiction.

Interestingly, in the beginning of the dialogue Nicolaus presents a no-illusions view about the oligarchical power structures of his time. One should consider, he says, that most human beings are forced to spend their lives in misery and great strain. On top of this, they live in slavish dependency upon their rulers. Therefore, almost none of them has the leisure to make use of his freedom of will, and arrive at consciousness of himself. Worries about the physical condition and services they have to perform distract them too much. Therefore, they do not get to search for the hidden God. But, if a union of wise men, coming from all the different religions, were to come together, it would be easy to find a solution.

The approach Nicolaus then develops, really reflects the “vision from above.” He says, that religious warfare is

approximate it more and more. It tastes, as well, like a sweetness, more and more like eternal nourishment.

So, unity is guaranteed, when the orientation of the mind toward wisdom and truth is recognized as primary and basic. Then, the participation mediates between the One and the Many. Sometimes, it is only the experience of a great catastrophe, as was the perception of the fall of Constantinople in the West, and as is the threatening perspective of a generalized war in the Middle East today, which shocks people into seriously thinking of an alternative. If there is then an appeal to an alternative, and wise men and women to take the initiative, the catastrophe may be avoided.

In *De docta ignorantia* (*On Learned Ignorance*), he speaks of the “*spiritus universorum*,” the spirit of universality, which is efficient in every aspect of creation. Religions or nations, or peoples, are elements of differentiation, but “the totality [the universe—HZL], as the most perfect of the order according to its nature, is presupposed to everything, so that everything can be in everything.” This is Cusa’s famous formulation, “*Quodlibet in Quolibet*.”

Concerning the political order, this means, that the multitude of peoples can be integrated without a violation of their specific identity, because the totality of the order is already given before.

A Peace-Order of Limitless Optimism

Further insight into the relation between the One and the Many in Cusa’s notion, is that every human being is a microcosm—Dr. Alim talked yesterday about D.C. General as a microcosm, which is absolutely true—which means, that he has not just a place in the universe, the macrocosm, but he contains the entire cosmos in himself in a complicative way. Every person is therefore the whole universe in the small.

Therefore, any “peace-order” can not be based on some secondary consideration, but it can only exist, if each microcosm has the chance to develop its fullest potential, which it can only do, if *all* microcosms develop in a maximum way. This has tremendous implications for the relations among human beings, among nations, and among peoples. A peace-order of sovereign nations can only exist, if each one is allowed to develop in the best possible way, which means that the common good is taken care of in the optimal way, so that all of the citizens can prosper and their talents flourish. Only if each microcosm understands that it is in its best self-interest, for all other microcosms to develop in the best way, only if each nation and each people desire the best development for all others, can concordance exist in the macrocosm, in the world as a whole.

This is why “peace negotiations” which focus only on matters of conflict at the level of the understanding—so-called “political solutions”—which Cusa would call the Aristotelian way of running back and forth (one could say, he’s almost talking about an Aristotelian shuttle diplomacy), do not work. One has to start with “coincidence thinking,” the agreement of minds concerning the final goal of mankind as a whole, which is self-perfection, ennoblement, and increase in the general population potential, as the condition for the continued existence for generations to come (naturally, the construction of the Eurasian Land-Bridge today, as a cornerstone for a global reconstruction, is an expression of such a final goal of mankind as a whole)—these philosophical questions must be there at the beginning, as a pre-condition for a functioning peace-order in the world. And this is why the ideas of Nicolaus are the most modern ideas I can think of, among all previous thinkers.

What is needed for this today, to heal the wounds of all the tortured people in Africa, in the Balkans, in the Middle East and other areas in the world, is that the focus be on the “*spiritus universorum*”; but also on a limitless cultural optimism, as expressed, for example, in Nicolaus’s sermon for Epiphany, which he delivered in 1454 in Brixen, and which has been called, correctly, a hymn to civilization, which praises the free and mechanical arts and sciences, as the great gift to mankind, which must be shared by all, so that the development of no one is unnecessarily delayed. At the end of the experiment of the Layman with the scale, he even says that every new discovery must be given over to an international pool, to which every people should have access, so that no one’s development is unnecessarily delayed.

Nicolaus was convinced, that this was the only human way of thinking, and I fully agree with him. In 1459, he wrote, that the human soul is substantially superior to all otherness. It can eliminate all otherness, because it has the non-other image of everything. If the soul thinks in this way, it is in “*intertemporal tempus*,” he says, in timeless time. This is what LaRouche calls the “simultaneity of eternity”!

Today, the idea of a community of sovereign nations, based on the common good of all, and based on the international law of peoples, has become a life-and-death issue for the entire human civilization. Can we not, for our own sakes, and as the most beautiful birthday present we could give to Nicholas of Cusa for his 600th birthday, develop the same power of intellect, the same existential commitment and passion to great ideas? If I look around in this room, I see representatives from all corners of the world. Let us be joyful about the multitude of cultural differentiation and beauty, because we are *One*, before we are Many.



A SYMPOSIUM ON THE 600TH ANNIVERSARY OF THE

Nicolaus of Cusa's 'On

by William F. Wertz, Jr.

Lyndon LaRouche has emphasized that, if humanity is to escape a descent into a new Dark Age, and accomplish the unprecedented task of proceeding directly from a global financial collapse into a new Golden Renaissance, it will be because we have become self-consciously creative by mastering the creative breakthroughs of our predecessors. The purpose of this article is to help you, the reader, to replicate in your own mind the fundamental scientific discovery made by Nicolaus of Cusa in his "On the Quadrature [Squaring] of the Circle" (1450).

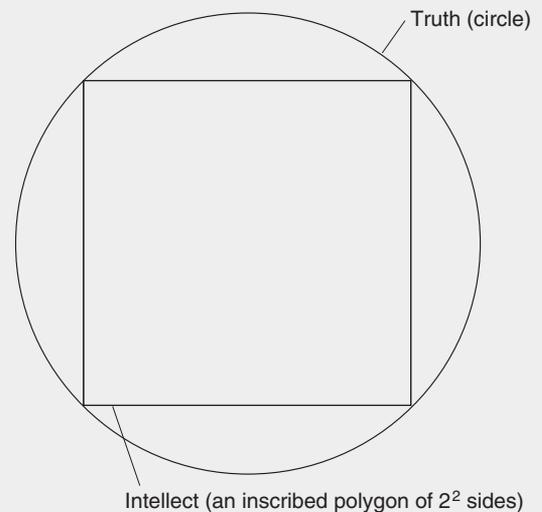
As LaRouche has written in many locations, but especially in Appendix A to "The Truth About Temporal Eternity,"* in working through Archimedes' (287-212 B.C.) propositions regarding the "Measurement of a Circle," Nicolaus of Cusa made a discovery which launched modern physical science. So important was this discovery and the method employed by Cusanus in making it, that it can truly be said, that they are responsible for mankind's having achieved a greater increase in its potential relative population density from the Council of Florence (1439-40) to today, than in all of prior human history.

The first indication of Cusa's work on the quadrature of the circle comes in *On Learned Ignorance*, written in 1439-40, immediately after the Council of Florence. There are three references in this piece to the quadrature of the circle. In Book I, Chapter III, entitled the "Precise Truth Is Incomprehensible," Cusanus writes:

Whatever is not truth cannot measure truth precisely. (By comparison, a non-circle cannot measure a circle, whose being is something indivisible.) Hence, the intellect, which is not truth, never comprehends truth so precisely that truth

* *Fidelio*, Summer 1994 (Vol. III, No. 2).

FIGURE 1. "The intellect is to truth as an inscribed polygon is to the inscribing circle. The more angles the inscribed polygon has, the more similar it is to the circle."

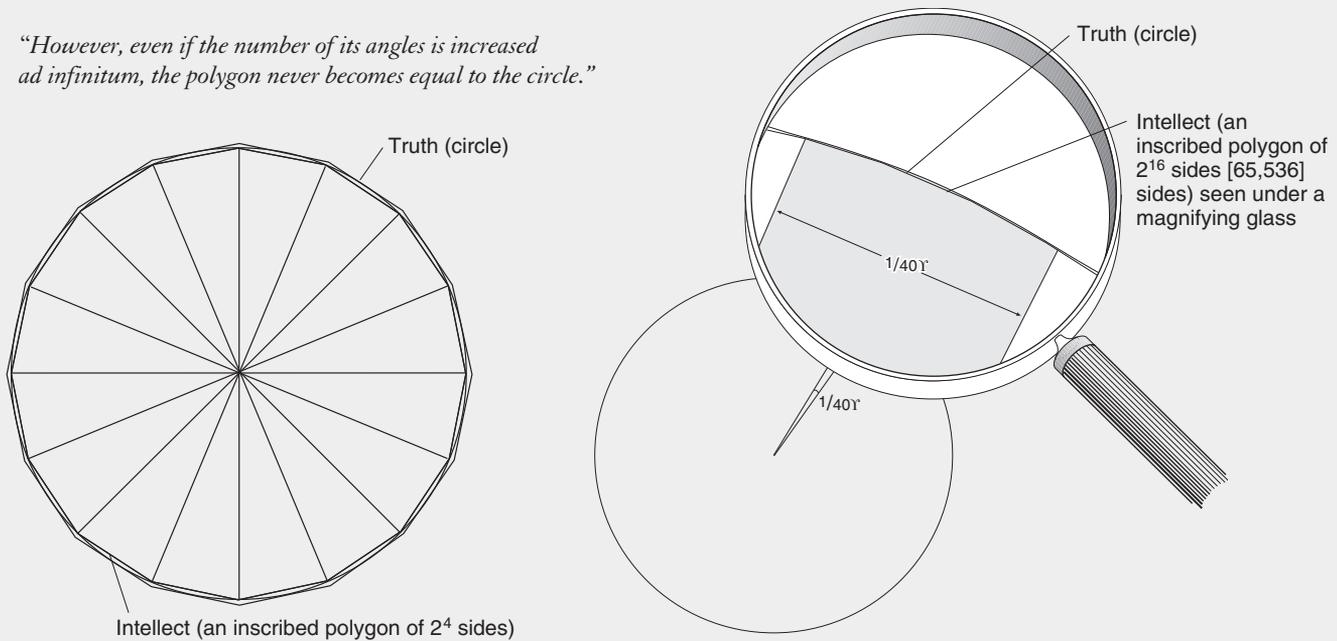


cannot be comprehended infinitely more precisely. For the intellect is to truth as [an inscribed] polygon is to [the inscribing] circle. The more angles the inscribed polygon has, the more similar it is to the circle. However, even if the number of its angles is increased *ad infinitum*, the polygon never becomes equal [to the circle], unless it is resolved into an identity with the circle. [SEE Figure 1]

In this passage, Cusanus makes the point that the circle is indivisible by nature compared to the non-circle, i.e., the polygon, the rectilinear sides of which can always be multiplied without changing its intrinsic nature. In this location, Cusanus uses the qualitative difference in the nature of a circle and a polygon, to underscore the fact that even though the human mind is created in the image of God, because it is created, i.e., finite, it cannot precisely attain the Truth itself, which is infinite. As Cusanus further writes in the same location, "there is no comparative relation of the infinite to the finite."

the Quadrature of the Circle'

"However, even if the number of its angles is increased ad infinitum, the polygon never becomes equal to the circle."



In Book III, Chapter I, Cusanus writes:

Hence, there is nothing in the universe which does not enjoy a certain singularity that cannot be found in any other thing, so that no thing excels all others in all respects or [excels] different things in equal measure. By comparison, there can never in any respect be something equal to another; even if at one time one thing is less than another and at another [time] is greater than this other, it makes this transition with a certain singularity, so that it never attains precise equality [with the other]. Similarly, a square inscribed in a circle passes—with respect to its size—from being a square which is smaller than the circle to being a square larger than the circle, without ever arriving at its equal. And an angle of incidence increases from being lesser than a right [angle], to being greater [than a right angle], without the medium of equality.

Finally, in Book III, Chapter IV, Cusanus writes in respect to Jesus Christ, who is God and man:

But the maximum intellect, since it is the limit of the potentiality of every intellectual nature and exists in complete actuality, cannot at all exist without being intellect in such way that it is also God, who is all in all. By way of illustration: Assume that a polygon inscribed in a circle were the human nature, and the circle were the divine nature. Then, if the polygon were to be a maximum polygon, than which there cannot be a greater polygon, it would exist not through itself with finite angles, but in the circular shape. Thus, it would not have its own shape for existing—[i.e., it would not have a shape which was] even conceivably separable from the circular and eternal shape.

Thus, Jesus Christ, who is one person, but has two natures, divine and human, is the exception to what Cusanus writes in Book I, Chapter III about the impossibility of the polygon ever becoming equal to the circle. In the case of Jesus Christ, the two natures are actually resolved in the one person.

Although Cusanus does not explicitly reference St. Anselm's proof of the existence of God in this location, nonetheless there is a definite connection. In his *Proslogium*, Anselm had argued that a being exists "than which a greater cannot be conceived." What Cusanus argues in the case of Jesus Christ is, that the maximum polygon, than which there cannot be a greater polygon, is an infinite polygon, and thus simultaneously an infinite circle.

As can be seen from the above, Nicolaus of Cusa's treatment of the quadrature of the circle derives from his concern with theological matters. I would even maintain that the scientific advance that he made over and against Archimedes, derives from his preoccupation with the central issue of the Council of Florence, the issue of the *Filioque*—the idea that the Holy Spirit proceeds from the Father *and the Son*. *On Learned Ignorance* was written immediately after the Council of Florence, and thus reflects Cusanus's intellectual concentration on this issue.

In Christian theology, the Son, as the second person in the Trinity, is equal to the Father. It is the notion of absolute equality appropriate to the Trinity, as opposed to the equality defined as approximation, which is the basis for Cusanus's advance over Archimedes. In "On the Quadrature of the Circle," Cusanus makes this distinction between the notion of equality as approximation, which Archimedes is apparently satisfied with, and the notion of equality as absolute precision.

As developed theologically by St. Augustine, St. Thomas Aquinas, and Cusanus, God the Father is unity, the Son is equality, and the Holy Spirit the concord or the connection of the two. It is this notion of equality which was fought for at the Council of Florence.

Influence of Llull and Dionysius

In the 1420's, Cusanus had travelled to Paris, where he gained access to the writings of Raymond Llull (1232-1316). Among the writings which Cusanus personally copied by hand, and can be found in Cusanus's library, is a work entitled "On the Quadrature and Triangulation of the Circle," written in June 1299. This work is important, because it begins with the statement that straight lines and circular lines are incommensurable, and that man cannot measure circular lines with straight lines.

This just underscores the fact that Cusanus was not the first to discover the incommensurability of a circular and a straight line. Cusanus's discovery was to realize the implications of the incommensurability, i.e., that the circle is not incommensurable to the polygon in the same way that the diagonal of a square is incommensurable with its side. The circle is transcendental, and therefore ontologically superior, to the polygon, something which Llull did not realize.

The other major influence on Cusanus's thinking about the difference between a circle and a polygon, as he himself writes in "On the Hunt for Wisdom," was Dionysius the Areopagite (the "Pseudo-Dionysius"). Cusanus writes in "On Divine Names," that Dionysius describes God as inaugmentable and irreducible. It is from this concept of the divine, that Cusanus derives his maximum-minimum—or isoperimetric—principle as characteristic of a circle.

This derivation of the isoperimetric principle from Dionysius is interesting historically. In Acts 17 of the New Testament, it is reported that the Apostle Paul travelled to Athens and spoke at the Areopagus on the Unknown God. He first attacked Epicurean and Stoic philosophers, and argued that the Mosaic God of Christianity is the Unknown God, in that He is not something created, and therefore finite, which can be known through the senses. After describing the Christian God, Paul cites a passage from one of the Greeks' own poets, Aratus of Soli: "For we too are his offspring." Paul then argues that since we are the offspring of God, we should not think of divinity as an idolatrous image fashioned from gold, etc. It is then reported that as a result of this speech, the individual Dionysius became a disciple of Paul.

Aratus, the poet cited by Paul, based his poem, entitled "Phenomena," upon a prose work by the same name written by Eudoxus (390-337 B.C.), the pupil of Plato, whose Eudoxian method was employed by Archimedes in attempting to prove the quadrature of the circle.

In the Fifth or Sixth century A.D., an unknown Platonic Christian adopted the pseudonym Dionysius the Areopagite. In his writings, including "On Divine Names," this individual developed the idea of negative theology. As stated above, Nicolaus of Cusa applied this method in his investigation of the quadrature of the circle. In "On the Hunt for Wisdom," Cusanus writes:

But the great Dionysius asserts in the ninth chapter of "On Divine Names," that that first Eternal is inflexible, inalterable, unmixed, immaterial, most simple, not indigent, inaugmentable, irreducible, has not become, is always existing

I take two of these, namely, the inaugmentable and the irreducible, and hasten with them to the hunt, and I say that the inaugmentable cannot be greater; therefore, it is the maximum. The irreducible cannot be smaller; it is therefore the minimum. Hence, because it is equally the maximum and the minimum, it is in no way smaller, since it is the maximum, and in no way greater, since it is the minimum, but rather the most precise, formal, and exemplary cause and measure of everything great or small.

Thus, in making his breakthrough, Cusanus literally looked back over centuries to the School of Athens, to Plato's pupil, Eudoxus, to Archimedes, to the Pseudo-Dionysius, and to Raymond Llull. And replicating the

work that they had done, Cusanus was able to advance beyond Archimedes and Greek science, to develop the concept of a true infinite which is transcendent, because it transcends the domain of greater and less.

Impact on Kepler

The impact of Cusanus's discovery on modern science is shown in Johannes Kepler's (1571-1630) *Mysterium Cosmographicum*, Chapter II, "Outlines of the Primary Derivation":

Now God decided that quantity should exist before all other things, so that there should be a means of comparing a curved with a straight line. For in this one respect, Nicolaus of Cusa and others seem to me divine, that they attached so much importance to the relationship between a straight and a curved line and dared to liken a curve to God, a straight line to his creatures; and those who tried to compare the Creator to his creatures, God to Man, and divine judgments to human judgments, did not perform much more valuable a service than those who tried to compare a curve with a straight line, a circle with a square.

And although under the power of God this alone would have been enough to constitute the appropriateness of quantities, and the nobility of a curve, yet to this was also added something else which is far greater: the image of God, the Three in One, in a spherical surface, that is of the Father in the center, the Son in the surface, and the Spirit in the regularity of the relationship between the point and the circumference. For what Nicolaus of Cusa attributed to the circle, others as it happens have attributed to the globe; but I reserve it solely for a spherical surface.

This passage from Kepler, who was the founder of astronomical science, not only establishes the contribution of Cusanus's work on quadrature to the development of modern science. It also is a further confirmation of the importance of Christian theology, and in particular, the notion of God the Creator as triune, to scientific discovery. Both Nicolaus of Cusa and Kepler proceeded in their study of the physical universe on the basis of the Augustinian view that everything created by God contains a "trace" of the Trinity.

Kepler continues:

Only if a spherical surface or a globe is cut by a flat plane can a circle exist.

This is the same principle which Cusanus develops in respect to the difference between a circle and a polygon. The polygon is derived from circular action. The circle cannot be attained from the standpoint of polygonal action. Similarly, circular action is derived from spherical action, which is a higher ontological order.

This concept of an ascending ontological order is developed by Nicolaus of Cusa in *On Learned Ignorance*,

Book I, Chapter XII:

For since all mathematical are finite and otherwise could not even be imagined: If we want to use finite things as a way for ascending to the unqualifiedly Maximum, we must first consider finite mathematical figures together with their characteristics and relations. Next, [we must] apply these relations, in a transformed way, to corresponding infinite mathematical figures. Thirdly, [we must] thereafter in a still more highly transformed way, apply the relations of these infinite figures to the simple Infinite, which is altogether independent even of all figure.

Archimedes' 'Measurement of a Circle'

With this introduction, let us now refer to Proposition 1 of Archimedes' "Measurement of a Circle." Cusanus wrote his "On the Quadrature of the Circle" in reference to this work. He also wrote three further pieces in response to Archimedes' "On Spirals," which was translated in 1453. These three additional works by Cusanus, were the "Quadrature of the Circle" (1453), the "Imperial Quadrature of the Circle" (1457), and a "Dialogue on Quadrature of the Circle" (1457). But since "On Spirals" employs the same method as his "Measurement of a Circle," it is sufficient for the purposes of this paper to address Cusanus's earlier treatment of the latter work.

Archimedes' first proposition reads as follows:

The area of any circle is equal to a right-angled triangle in which one of the sides about the right angle is equal to the radius, and the other to the circumference, of the circle.

As we shall see, Archimedes' proof of this proposition depends upon two propositions in Euclid's *Elements*, which Archimedes attributes to Eudoxus. These two are Book X, Proposition 1 and Book XII, Proposition 2. These propositions reflect the Eudoxian "method of exhaustion" used by Archimedes.

Book X, Proposition 1 reads as follows:

Two unequal magnitudes being set out, if from the greater there be subtracted a magnitude greater than its half, and from that which is left a magnitude greater than its half, and if this process be repeated continually, there will be left some magnitude which will be less than the lesser magnitude set out.

Let AB and C be two unequal magnitudes of which AB is the greater [SEE Figure 2]: If from AB there be subtracted a magnitude HB greater than its half, and from AH which is left a magnitude KH greater than its half, and if this process be repeated continually, there will be left some magnitude AK which will be less than the magnitude C .

In Euclid's Book XII, Proposition 2, this Eudoxian method of exhaustion is applied first to a polygon inscribed within a circle, and then to a polygon circumscribed around a circle. According to this proposition, we can exhaust a circle, in the sense of Book X, Proposition 1, by successively inscribing in it regular polygons, each of which has twice as many sides as the preceding one. We take an inscribed square, bisect the arcs subtended by the sides, and form an equilateral polygon of eight sides. We do the same with the latter, forming a polygon of 16 sides, and so on. As we shall see, what is left over when any one of these polygons is taken away from the circle, is more than half exhausted when the next polygon is made and subtracted from the circle. This is proven by the fact that the square is greater than half the circle, and the regular octagon, when subtracted, takes away more than half of what was left by the square.

Take an arc of a circle cut off by a chord AB [SEE Figure 3]. Bisect the arc in C . Draw a tangent to the circle at C , and let AD and BE be drawn perpendicular to the tangent. Join AC and CB . Then DE is parallel to AB . Thus, $ABED$ is a rectangle, and it is greater than the segment ACB . Therefore its half, the triangle ACB , is greater than half the segment. Thus, by Euclid X.1, the construction

FIGURE 2.

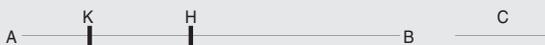


FIGURE 3.

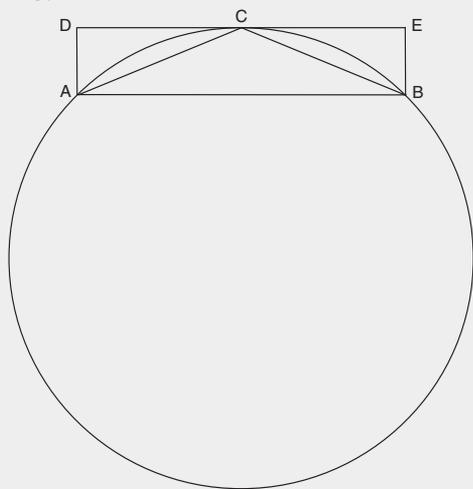


FIGURE 3(a). *Segments are shaded.*



of successive regular polygons in a circle, if continued far enough, will at length leave segments which are together less than any given area. (A segment is defined as the area within a circle cut off by a line [SEE Figure 3(a)].)

The same method is now used in respect to a polygon circumscribed around a circle [SEE Figure 4]. Suppose a square $ABCD$ described about a circle. Make an octagon described about the circle by drawing tangents at the points E , etc., where OA , etc., meet the circle. Then the tangent at E cuts off more than half of the area between AK , AH , and the arc HEK . Thus, the octagon takes from the square more than half the space between the square and the circle. If continued enough times, the construction of successive regular polygons circumscribing the circle will leave sectors which are together less than any given area. (A sector is defined as the area outside of a circle cut

FIGURE 4.

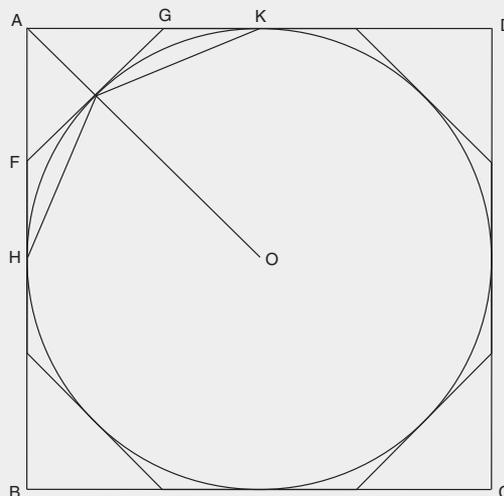
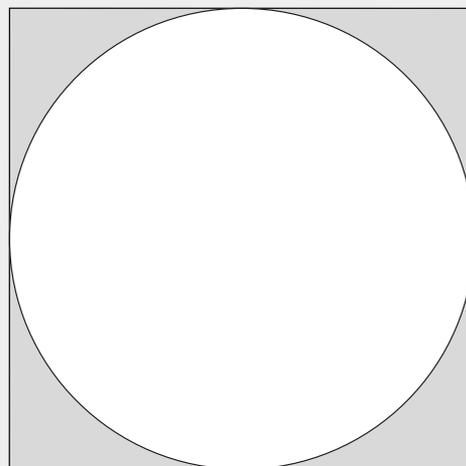


FIGURE 4(a). *Sectors are shaded.*



off by two intersecting tangents [SEE Figure 4(a).]

Now let us return to Archimedes' proposition. Archimedes says, let $ABCD$ be the given circle [SEE Figure 5], and K the triangle described [Figure 5(a)]. Then, if the circle is not equal to K , it must be either greater or less.

What Archimedes then does, is to prove that the circle cannot be either greater or less than K . First, he assumes that it is greater than K , and then, using the Eudoxian method of exhaustion, proves that it cannot possibly be

greater. Then, assuming that it is less, he uses the same method to prove that it is impossible for it to be less. Then, since it is neither greater nor less than K , he concludes that it must be equal to it.

In the first case, in which we assume that the circle is greater than K , he proceeds as follows: Inscribe a square $ABCD$, bisect the arcs AB , BC , CD , DA , then bisect the halves, and so on, until the sides of the inscribed polygon whose angular points are the points of division, subtend segments whose sum is less than the excess of the area of the circle over K . Thus, the area of the polygon is greater than K .

Let AE be any side of it, and ON the perpendicular on AE from the center O [SEE Figure 6]. Then, ON is less than the radius of the circle, and therefore less than one of the sides about the right angle in K . But, the perimeter of the polygon is less than the circumference of the circle, i.e., less than the other side about the right angle in K . Therefore, the area of the polygon is less than K ; which is inconsistent with the hypothesis.

In the case where the circle is less than K , Archimedes directs: Circumscribe a square, and let two adjacent sides, touching the circle in E and H , meet in T [SEE Figure 7]. Bisect the arcs between adjacent points of contact and draw the tangents at the points of bisection. Let A be the middle point of the arc EH , and FAG the tangent at A . Then the angle TAG is a right angle. Therefore TG is greater than GA and greater than GH .

It follows that the triangle FTG is greater than half the area $TEAH$.

By continuing the process, we shall ultimately arrive at a circumscribed polygon, such that the sectors are altogether less than the excess of K over the area of the circle.

FIGURE 5.

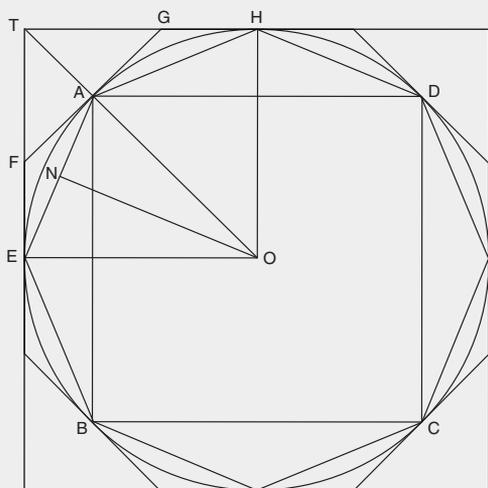


FIGURE 5(a).



FIGURE 6. Detail of Figure 5 in respect to inscribed polygon.

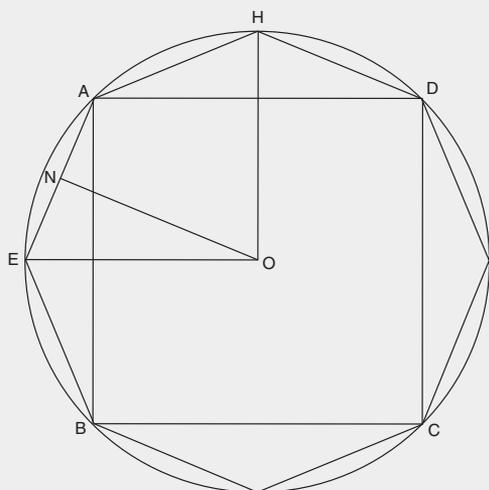
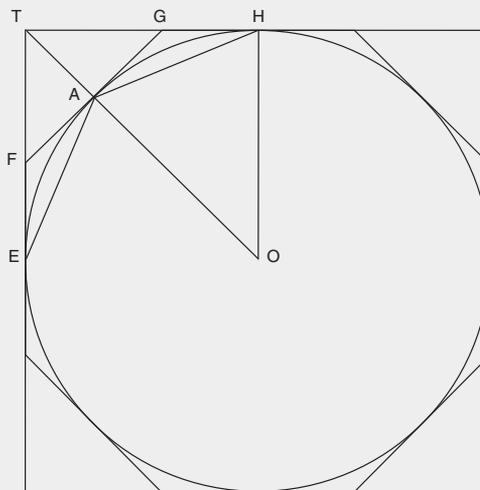


FIGURE 7. Detail of Figure 5 in respect to circumscribing polygon.



Thus, the area of the polygon will be less than K .

However, since the perpendicular from O on any side of the polygon is equal to the radius of the circle, while the perimeter of the polygon is greater than the circumference of the circle, it follows that the area of the polygon is greater than the triangle K ; which is impossible.

Whereas in Proposition 1, Archimedes claims to have proven the equality of the circle and the polygon, in Proposition 3 he makes it absolutely clear that his notion of equality is that of approximation. Proposition 3 reads:

The ratio of the circumference of any circle to its diameter is less than $3\frac{1}{7}$ but greater than $3\frac{10}{71}$.

He arrives at the first value by circumscribing a circle with a 96-sided polygon, and the second value by inscribing a 96-sided polygon in a circle.

‘On the Quadrature of the Circle’

It is clear that Nicolaus of Cusa is referring to Archimedes’ Proposition 1 in “On the Quadrature of the Circle.” At the beginning of his work, Cusanus writes:

There are scholars, who allow for the quadrature of the circle. They must necessarily admit, that circumferences can be equal to the perimeters of polygons, since the circle is set equal to the rectangle with the radius of the circle as its smaller and the semi-circumference as its larger side. If the square equal to a circle could thus be transformed into a rectangle, then one would have the straight line equal to the circular line. Thus, one would come to the equality of the perimeters of the circle and the polygon, as is self-evident.

That Cusanus is referring to Archimedes here is clear from the second paragraph of his later work, “The Quadrature of the Circle,” where he writes, “We do not read that anyone has come nearer to the knowledge of the facts of this matter than Archimedes, who first pointed to the fact that a rectangle from the radius and the half-circumference of a circle, is equal to the area of the circle.” Since a right-angled triangle is half the area of a rectangle, Cusanus’s formulation of Archimedes’ proposition employs the semi-circumference with the rectangle, whereas the proposition as presented above employs the circumference with the right-angled triangle.

Cusanus begins his work with a proposition based upon the assumption of the validity of Archimedes’ proof. The proposition is as follows:

If to a given perimeter of a triangle an equal circular perimeter can be given, then the radius of this circle exceeds by one-fifth of its total that line, which is drawn from the center of the triangle to the point quartering the side from the corner.

In the course of the work, he will explain this proposition, and derive from it an approximate value for π . However, through this proposition he will simultaneously show why the value obtained is only approximate, and not precise. Before elaborating on this proposition, however, Cusanus proceeds to challenge the axiomatic assumptions underlying Archimedes’ work.

As Cusanus stresses, Archimedes’ proposition assumes that “Where one can give a larger and a smaller, one can also give an equal.” But, as Cusanus continues, there are those “who deny the possibility of the quadrature of the circle,” and they assert that “in mathematics, the conclusion does *not* hold, that where one can give a larger and a smaller, there one can also give an equal.”

Then, Cusanus goes to the crux of the matter. He writes: “There can namely be given an incidental angle that is greater than a rectilinear, and another incidental angle smaller than the rectilinear, and nevertheless never one equal to the rectilinear. Therefore with incommensurable magnitudes this conclusion does not hold.” [SEE Figure 8]

Cusanus is raising an issue which has historically divided the scientific community. What he is pointing to, is the existence of a type of angle other than a rectilinear angle: the incidental angle of a segment, i.e., the angle inside a circle between the circumference and the line which cuts it off. This is referred to in Euclid in only one location, Book III, Proposition 16, as the “angle of the semicircle.” The other angle which Cusanus will refer to in “On the Quadrature of the Circle” is the contingent or cornicular (horn-like) angle [SEE Figure 9]. This is the angle between the circumference of a circle and the tangent. It is referred to in the same location in Euclid as “the remaining angle.”

Euclid’s Book III, Proposition 16 reads as follows:

The straight line drawn at right angles to the diameter of a circle from its extremity will fall outside the circle, and into the space between the straight line and the circumference another straight line cannot be interposed; further the angle of the semicircle is greater, and the remaining angle less, than any acute rectilineal angle.

According to this proposition, if a straight line touches a circle at one point only, i.e., is tangent, then any other straight line which one attempted to interpose between that tangent and the circumference, would necessarily cut the circumference in two points, and thus fall within it [SEE Figure 10].

If one wished to argue that the circle can be squared—that is, that it is possible to construct a square whose area is equal to that of a given circle—one would have to insist that the incidental angle is not a true angle, and the contingent angle does not exist at all. The battle over this issue is

FIGURE 8. *The incidental angle b is greater than the rectilinear angle c , and the incidental angle a is smaller than the rectilinear angle c . Yet, there is never an incidental angle equal to c .*

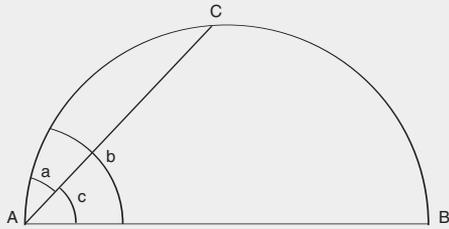
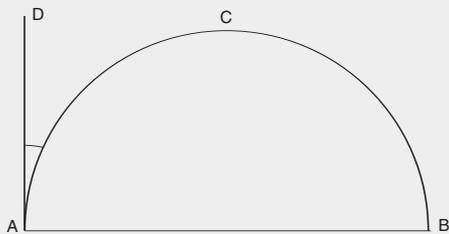


FIGURE 9. *The contingent or cornicular (horn-like) angle DAC is the angle between the tangent AD and the semicircle ACB .*

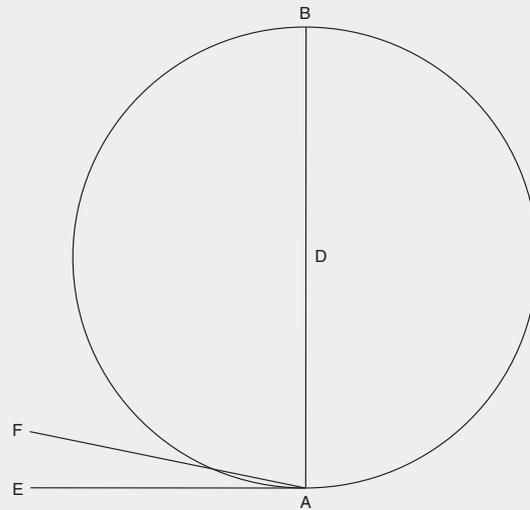


fascinating, because it goes to the heart of the battle between Platonic science and Aristotelian anti-science.

One of the most critical comments on Euclid's Book III, Proposition 16 was made by Johannes Campanus, who edited Euclid's *Elements* in the Thirteenth century. He inferred from III.16 that there was a flaw in the principle that the transition from the less to the greater, or vice versa, takes place through all intermediate quantities, and therefore through the equal. If a diameter of a circle, he says, be moved about its extremity until it takes the position of the tangent to that circle, then, as long as it cuts the circle, it makes an acute angle less than the "angle of a semicircle"; but the moment it ceases to cut, it makes a right angle greater than the same "angle of a semicircle." The rectilinear angle is never, during the transition, equal to the "angle of a semi-circle." There is therefore an apparent inconsistency with Book X, Proposition 1, and Campanus could only observe in explanation of the paradox, that "these are not angles in the same sense, for the curved and the straight are not things of the same kind without qualification."

There is every reason to believe that Cusanus had access to Campanus's edition of Euclid. Moreover, this is the same issue that Cusanus refers to in the passage in Book III, chapter I of *On Learned Ignorance* cited at the beginning of this article. Cusanus refers to this logical paradox as a "certain singularity."

FIGURE 10. *Straight line EA , at right angles to the diameter AB , is tangent to the circle. No straight line FA can be interposed into the space between the straight line EA and the circumference. Such a line FA would necessarily cut the circle in two locations, creating an incidental angle, rather than a contingent one. Therefore, the cornicular angle formed by the circumference and tangent EA is less than any possible rectilinear angle.*



In 1557, the French geometer Peletier, argued that the "angle of contact" was not an angle at all. He claimed that the "contact of a straight line with a circle" is not a quantity, and that angles contained by a diameter and a circumference are all right angles and equal to rectilinear right angles. For Peletier, there was no difficulty with Euclid's Book X, Proposition 1, because all angles of contact are not-angles, not quantities, and therefore nothings.

Vieta (1540-1603) agreed with Peletier that the angle of contact is no angle. His pseudo-proof was that the circle may be regarded as a plane figure with an infinite number of sides and angles; but a straight line touching a straight line, however short it may be, will coincide with the straight line and will not make an angle. In other words, if the circle is a straight line in the infinitely small, then there is no angle at the point of contact with the tangent.

Not surprisingly, this was also the view of Galileo Galilei (1564-1642).

This issue is in no way esoteric or academic; rather, it is one of the most profound issues confronting man. The cornicular angle is either equal to null, as the Aristotelians maintain, or it is virtually null, but nonetheless exists, and in fact has greater being and reality than the polygon which is derived from it. If the former is true, then the same argument can be made (and in fact has been made) theologically, that neither God nor the human soul exists. If the circle is no more than a polygon

with an infinite number of sides, then God is equal to His creation (which is the basis of pantheism), and the soul is not immortal, but rather dies with the body.

This is the same issue as that which later divided Gottfried Wilhelm Leibniz (1646-1716) and Leonhard Euler (1707-83). Leibniz insisted that monads, or simple substances, are indestructible and indivisible. Euler, on the other hand, had lyingly argued that all magnitude is divisible to infinity.

To return to Nicolaus of Cusa's argument: If one recognizes the existence of incidental angles, and understands that an incidental angle is not commensurable with a rectilinear angle, then it is clear that there can be no rational proportion between the area of a circle, and a rectilinearly enclosed area. As Cusanus writes:

If a circle can be transformed into a square, then it necessarily follows, that its segments can be transformed into rectilinearly enclosed figures. And since the latter is impossible, the former, from which it was deduced, must also be impossible. Obviously, then, the semicircle cannot be transformed into a rectilinearly enclosed figure, and consequently also not the circle or one of its parts.

Similarly, Cusanus writes in respect to contingent or cornicular angles that, although they cannot be divided by another straight line, they are nonetheless divisible by another curved line: "The contingent angle is a divisible magnitude only in its species, since to every contingent angle there is a larger and a smaller contingent angle."

Species Difference

Through this discussion of the incommensurability of incidental and contingent angles to rectilinear ones, Cusanus proves that the circle cannot be squared, because "polygonal figures are not magnitudes of the same species as the circular figure":

In respect to things which admit of a larger and smaller, one does not come to an absolute maximum in existence and potentiality. Namely, in comparison to the polygons, which admit of a larger and smaller, and thereby do not attain to the circle's area, the area of a circle is the absolute maximum, just as numerals do not attain the power of comprehension of unity and multiplicities do not attain the power of the simple.

What is significant about this statement is, that Cusanus has identified the fact that the circle is of a higher power, or cardinality, than the polygon. The circle is a true infinite. As such, it does not admit of greater or less, as does the polygon. The area of the circle is thus simultaneously maximal and minimal. Moreover, it is in actuality all that it is potentially. The circle transcends the polygon in the same way that unity transcends numerals, and the simple transcends multiplicities. The latter cannot attain

to the former; nonetheless, the former are present in the latter, as the cause is present in its effect.

Cusanus goes on to say that some consider the square equal to the circle, if it is not larger or smaller than the circle by the smallest specifiable fraction of the square or the circle:

If one apprehends the concept of equality in this way, then it is justly said that one can give an equal circumference to a given polygonal perimeter. However, if one apprehends the concept of equality, insofar as it relates to a magnitude, *absolutely*, without regard to rational fractions, then it is true that no precisely equal non-circular magnitude can be given for a circular magnitude.

Cusanus now proceeds to explain his initial proposition. In demonstrating that a rational approximation of equality is possible, he at the same time shows why it is that one cannot know precise equality. He writes:

In order to explain the proposition, a triangle abc shall be drawn [SEE Figure 11]; around the midpoint d shall be inscribed a circle efg , and a circle hi circumscribed; the straight line de shall be so drawn, that e is the midpoint between a and b ; then db shall be drawn. Further, a straight line dk shall be drawn from d to the midpoint between e and b . I maintain: dk is smaller than the radius of the circle isoperimetric to the triangle, by one-fourth of the length dk .

Therefore, one must extend dk by a fourth of its total length, and indeed let dl be larger than dk by one fourth of dk . I maintain: dl is the radius of the circle of equal circumference to the triangle. One shall therefore describe the circle lmn . I maintain: The circumference lmn is equal to the circumference abc , and indeed such that lmn is neither larger nor smaller, not even by the very smallest rational fraction of the circumference abc .

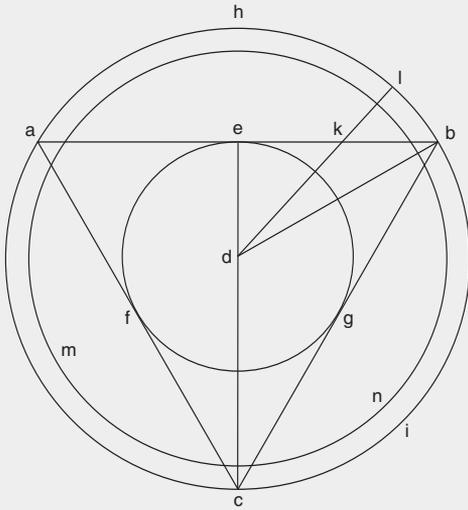
In order to prove this assertion, I proceed in the following manner: I say, if it be possible, to draw a straight line from d to eb , that is the radius of the circle isoperimetric to the triangle, then it must be to the sum of the sides of the triangle, as the radius of the circle is to the circumference.

However, since this radius dl has no rational proportion to the circumference lmn , dl cannot be proportional to de or db . Nor is there commensurability between dl and dk or between dk and eb or db . As a result, therefore, of the incommensurability of the radius and the circumference of a circle, "no point on eb can be given, to which one could draw a line, which were precisely that sought." Hence the best that one can do is to draw a line which is "most non-proportional to eb , de , and db " and this will be the "least non-proportional to the one sought."

If, from the standpoint of the circle, the lines of the polygon are rendered incommensurable, we cannot determine with absolute precision the location of k such that the radius dl will be of the length sought.

We can, however, attain a rational approximation by

FIGURE 11.



defining the location k as one-fourth the length of ab or one-half the length eb . Cusanus writes that infinitely many lines can lie between e and b . The best rational approximation that we can achieve is the line which is drawn from d towards the midpoint f between e and b [SEE Figure 12]. This is the only line whereby the proportion of the distance from e to the length ab is the same one as the proportion of the distance from b to the length ab .

Once this is done, then one can derive a value for π . If $db=60$, then $ed=30$, $eb=\sqrt{2700}$, and the circumference of the triangle, which is equal to the circumference of the isoperimetric circle lmn , is $6\sqrt{2700}$.

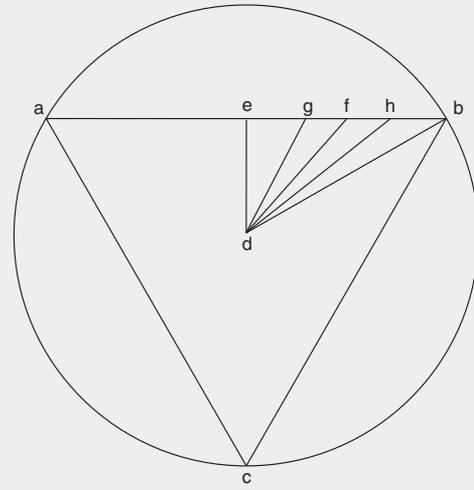
Consequently, $ek=\sqrt{675}$ and $dl=\frac{5}{4}\sqrt{1575}$, the diameter of the isoperimetric circle $2 \times dl=2\frac{1}{2}\sqrt{1575}$. One then obtains the value of π by dividing the circumference $6\sqrt{2700}$ by the diameter $2\frac{1}{2}\sqrt{1575}$. The result is 3.1423376.

Having done this, Cusanus writes:

True, that is not the precise value, but it is neither larger nor smaller by a minute, or a specifiable fraction of a minute. And so one cannot know by how much it diverges from ultimate precision, since it is not reachable with a usual number. And therefore this error can also not be removed, since it is only comprehensible through a higher insight and by no means through a visible attempt. From that alone you can now know, that only in the domain inaccessible to our knowledge, will a more precise value be reached. I have not found that this realization has been passed along until now.

In this passage, Cusanus self-consciously identifies the unique discovery he has made of a new type of number domain. As Lyndon LaRouche has pointed out, the Greeks had discovered incommensurability. They knew,

FIGURE 12.



for instance, that the diagonal of a square was incommensurable with the side. Archimedes believed that π was similarly an irrational magnitude. But what Cusanus established is that, whereas the relationship of the diagonal to the side of the square is irrational, the relationship of the circle to the square is transcendental. As LaRouche writes in Appendix A: “What Cusanus did was to recognize that π is not, ontologically, an irrational, but a number of a higher ontological type than irrationals, of a higher species.”

LaRouche continues in the same location: “Cusanus recognized that circular action: (a) could not be defined ontologically within the implicitly axiomatic formalities of Greek mathematics, since the circular perimeter, the locus of that *action*, was an absolute mathematical discontinuity between the two transfinite series, inscribed and circumscribed, of polygonal processes. (b) Moreover, since those polygonal processes themselves were externally bounded by circular constructions, the axiomatic formalities implicitly underlying Archimedes’ constructions could not access *efficiently* the ontological domain of circular action, but circular action could determine, and thus access efficiently the processes of the polygonal constructions’ domain. (c) Therefore, we must discard the implied set of axioms of Archimedes’ use of the Euclidean domain, and replace those with the axiomatic quality (Platonic hypothesis) of universal circular action (later, universal least action).”

On Learned Ignorance

After having thus superseded Archimedes by discarding his Euclidian axiomatic assumptions, Cusanus identifies the source of his discovery as his “learned ignorance”: “The

measure with which man strives for the inquiry of truth has no rational proportion to Truth itself, and consequently, the person who is contented this side of precision does not perceive the error. And therein do men differentiate themselves: These boast to have advanced to the complete precision, whose unattainability the wise recognize, so that those are the wiser, who know of their ignorance.”

The concluding section of “On the Quadrature of the Circle” concentrates upon bringing out the theological implications of this discovery, which implications, as emphasized at the beginning of this article, are actually, self-reflexively, the source of the scientific breakthrough.

As Cusanus first made clear in *On Learned Ignorance*, the relationship of the circle to the polygon is a metaphor for the relationship between God and His creation, and in particular between God and man, who is created in His image.

Cusanus argues that “mathematical thinking has its seat in the true powers of the mind.” As a result, one can ascend from the study of finite mathematical forms to infinite mathematical forms and finally to an intellectual vision of the First Form, to the Absolute Form of forms. Thus, just as the circle’s area remains incommensurable to any area of a non-circle, so the infinite power of God is incommensurable to any non-infinite. As Cusanus writes:

Thus, just as the circle is a figurative perfection, comprehending every possible perfection of figures in itself, and just as its surface embraces the surfaces of all figures and has nothing in common with any other figure, rather is in itself perfectly simple and unique, so is absolute eternity the Form of all forms, which in itself encloses the perfection, and so its omnipotence encompasses all power of the forms, of every kind, but without having a commonality with any other form.

Cusanus then makes an explicit comparison between the circle and the triune nature of God:

And just as the circular figure possesses, in the property of having neither beginning nor end, a certain similarity with eternity, and represents in its area, wherein it encloses the areas of all figures, a certain figure of omnipotence, and represents in the close connection with which it unites circumference and area, in a manner of speaking, a figure of the most loving and infinite connection, so we view in the divine essence the eternity, which in itself has omnipotence, and in both the infinite union. In eternity we view the beginning without beginning, and just this we name the paternal first cause. In the omnipotence, which comes from the beginning without beginning, we view the unbounded beginning from the beginning. In the infinite connection we view the most loving union of the beginning without beginning and of the beginning from the beginning. Namely in that we see eternity in the divine essence we view the Father. In that we see the power of eternity in the same essence, which cannot be other

than infinite, since it is the power of eternity—of the beginning without beginning—, therein we view the equality of the eternal unity, that is, the Son of the Father. In that we see the most loving union of the eternal unity and its equality, we view the Spirit of them both. In the simplest unity of eternity we thus see the strongest and most powerful equality and conversely in equality, unity. Likewise, we also see unity and equality in the union.

Although some may argue foolishly that this theological discussion is extraneous or irrelevant to Cusanus’s mathematical discovery, nothing could be further from the truth. It is precisely the Augustinian notion of the Son of God as “begotten, not made, consubstantial with the Father,” which gives Cusanus the idea of absolute equality, as distinct from the rational approximation of equality between the circle and the polygon accepted by Archimedes.

At the same time, as Lyndon LaRouche has pointed out, Cusanus’s scientific discovery that π is a transcendental number, is directly related to St. Anselm’s ontological proof of the existence of God.

Cusanus has shown that the circle is not null, but rather only virtually null. As such, it exists and is ontologically superior to the polygon, that is, all polygons are caused by circular action. Cusanus was not the first to realize that one cannot measure a circular line by means of a straight line, but he had the intellectual courage, because of his desire to attain the Truth itself, to realize the implication of this incommensurability.

The extent of Cusanus’s courage is better understood and appreciated, when it is realized that even today, 550 years after his discovery, the truth of that discovery continues to be denied by the Aristotelian heirs of Peletier, Vieta, and Galileo.

The Venetians and their pseudo-scientists have suppressed knowledge of Cusanus’s discovery, because they do not want you, the reader, to develop your own capacity for creativity; they do not want you to know that the capacity for creativity, which this discovery reflects, is the source of the progress which mankind has made during the 550 years since the Council of Florence. They realize that if you did come to master this method in your own mind, if you did become wittingly *imago Dei*, we would have the power to renew the face of the earth.

If we are to succeed in building a bridge from Hell to Purgatory in the apocalyptic period ahead, it will be because enough of us have refused to be “dumbed down,” and have accepted instead the challenge to master the crucial scientific discoveries of our predecessors, so as to better prepare ourselves to make the new, revolutionary discoveries necessary to continued human progress.



A SYMPOSIUM ON THE 600TH ANNIVERSARY
OF THE BIRTH OF CARDINAL NICOLAUS OF CUSA

Nicolaus of Cusa Moved the Earth

by Bruce Director

When a Roman soldier killed Archimedes, in 212 B.C., the Earth stood still. At least, that was the intention of those Mithra-cult adherents who bear ultimate responsibility for the murder.

Of course, the Earth never physically stopped. But, for approximately 1,500 years, from the death of Archimedes, until Cusa's completion of *On Learned Ignorance* in A.D. 1440, knowledge of the Earth's motion around the sun, with only a few notable exceptions, vanished from the Earth.

How is it that knowledge of a physical principle, whose discovery requires no more "information" than regular observations of the motions of the heavenly bodies, could be obscured for so many years? As the collapse of the so-called "New Economy" pointedly demonstrates, knowledge does not derive from information. Rather, knowledge is derived only from the cognitive power of the human mind, the power of the mind to rise above the limitations of the senses, and discern the underlying intentions (true causes), of which these sense impressions are but a reflection. The discovery of the concept of the heliocentric solar system by Archimedes' predecessor, Aristarchus of Samos, is typical of those types of cognitive discoveries achieved through the method of Socrates and Plato. Its suppression is associated with minds stupefied by the method of Aristotle.

With the publication of *On Learned Ignorance*, Cusa broke the grip of Aristotle over human thought, establishing a new method for scientific investigation which revived the method of Plato, as enriched by the principles

of Christianity. These principles, Cusa insisted, were comprehended through human Reason, and were therefore ecumenical, capable of being known to be true by Muslim, Jew, or other non-Christian alike.

Although a complete review of the impact of Cusa's work for modern science would be an enormous undertaking, far beyond the scope of this present article, a significant insight into the importance of Cusa's scientific method can be obtained by tracing the direct impact of Cusa on the astrophysics of Johannes Kepler.

The Motion of the Heavenly Bodies

Astronomy is the oldest inquiry of science. It is beyond doubt that very ancient, prehistorical cultures had developed a heliocentric conception of the solar system, as this was a necessary prerequisite for the trans-oceanic navigation practiced by Egyptian and other, earlier civilizations.

In *Prometheus Bound*, Aeschylus presents a metaphorical account of those early astronomical discoveries. Prometheus, who has been chained to a rock for all eternity by Zeus, in retaliation for helping humankind, speaks of his first efforts to lift man up to the level of being truly human:

Still, listen to the miseries that beset mankind—how they were witless before and I made them have sense and endowed them with reason. I will not speak to upbraid mankind but to set forth the friendly purpose that inspired my blessing.

First of all, though they had eyes to see, they saw to no avail; they had ears, but they did not understand; but, just as shapes in dreams, throughout their length of days, without purpose they wrought all things in confusion. They had neither knowledge of houses built of bricks and turned to face the sun nor yet of work in wood; but dwelt beneath the ground like swarming ants, in sunless caves. They had no sign either of winter or of flowery spring or of fruitful summer, on which they could depend but managed everything without judgment, until I taught them to discern the risings of the stars and their settings, which are difficult to distinguish.

Yes, and numbers, too, chiefest of sciences, I invented for them, and the combining of letters, creative mother of the Muses' arts, with which to hold all things in memory. I, too, first brought brute beasts beneath the yoke to be subject to the collar and the pack-saddle, so that they might bear in men's stead their heaviest burdens; and to the chariot I harnessed horses and made them obedient to the rein, to be an image of wealth and luxury. It was I and no one else who invented the mariner's flaxen-winged car that roams the sea. Wretched that I am—such are the arts I devised for mankind, yet have myself no cunning means to rid me of my present suffering.¹

Reason tells us that Prometheus's metaphorical account is truthful. As Lyndon H. LaRouche, Jr. has developed through his principles of physical economy,² Man, the only creature endowed with cognition, must rise above his senses, and discover the principles by which the universe is composed, in order to survive and grow. Through the discovery of such universal principles, Man increases his dominion over the entire universe, from the microphysical to the astrophysical, among living processes and non-living ones; that is, the heavens and the Earth. Nowhere is this more evident, than in determining the motion of the heavenly bodies. Without such knowledge, maritime navigation, agriculture, and other advancements of human economy would be impossible. Do not make the mistake of thinking of these accomplishments in pragmatic terms, however. All practical benefits that accrue from astronomy, are a consequence of the fact that, in its pursuit,



Johannes Kepler

Man finds his true human nature.

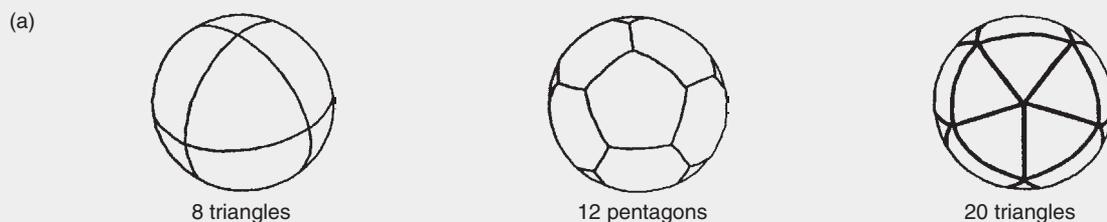
Anyone today can re-create, in his own mind, the same paradoxes as those known by the ancients who received Prometheus's beneficence. Go out and look at the sky over the course of a day and night, and over the course of a year. Observe the rising and setting of the sun, the motion of the stars around the sky, the changes in position at which the sun and the stars rise, and the more complicated motions of the five planets, which the ancients called "wanderers." Imprisoned as man is by his limited senses, all these motions are presented to him as a com-

plicated tangle of changes in position seen as if projected onto the inside of a sphere. From the standpoint of sense perception, the Earth stands still, and all the heavenly bodies move about it in apparent circles. But, when all these motions are thought of as One, anomalies emerge, which are paradoxical with respect to pre-existing notions about the universe. It is through such paradoxes, that man discovers those concepts that reflect the true causes of the appearances. As Kepler wrote in *The New Astronomy*:

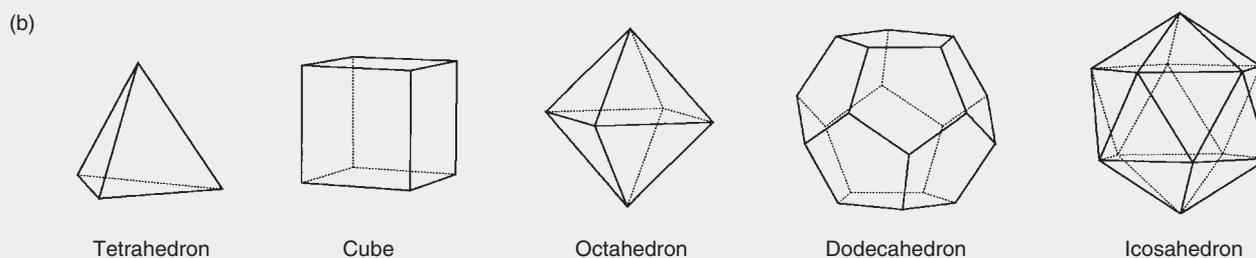
The testimony of the ages confirms that the motions of the planets are orbicular. It is an immediate presumption of reason, reflected in experience, that their gyrations are perfect circles. For among figures, it is circles, and among bodies, the heavens, that are considered the most perfect. However, when experience is seen to teach something different to those who pay careful attention, namely, that the planets deviate from simple circular paths, it gives rise to a powerful sense of wonder, which at length drives men to look into causes.³

How Man rises above the senses to knowledge through Reason, is the implicit subject of all Plato's dialogues. In the *Timaeus*, Plato presents God, the Creator of the Universe, as the Composer, who constructed the universe according to those principles of harmony which his greatest creature, Man, would recognize as beautiful. As Philo of Alexandria, the First-century A.D. Jewish philosopher, demonstrates, Plato's view of God, Man, and Nature, is absolutely congruent with the Mosaic principle

FIGURE 1. (a) It was a discovery of Greek scientists from Pythagoras through Theaetetus, that the sphere could be divided evenly in five and only five different ways, specifically by 4, 8, and 20 triangles; 6 squares; and 12 pentagons. Shown are the divisions into 8 and 20 equal spherical triangles, and 12 equal spherical pentagons.



(b) When the vertices of the five possible spherical polygons are connected, they form the five regular solids depicted below. These are the only solid figures composed of one and the same equilateral polygon. Plato described the Greek theory of the significance of these solids in the *Timaeus*, hence the name, “Platonic solids.”



expressed at the beginning of the Book of Genesis, that “Man is created in the image of God.”⁴

The question for science, posed by Plato, is, What is the relationship of that which comes to us through the senses, and the underlying truth those sense impressions reflect? Furthermore, How does the Mind find that truth?

This requires the method Plato develops in *The Republic*, by which the Mind ascends successively from sense perception, to opinion, to understanding (*dianoia*), to reason (*nous*):

This then is the class that I described as intelligible, it is true, but with the reservation first that the soul is compelled to employ assumptions in the investigation of it, not proceeding to a first principle because of its inability to extricate itself from and rise above its assumptions, and second, that it uses as images or likenesses the very objects that are themselves copied and adumbrated by the class below them, and that in comparison with these latter are esteemed as clear and held in honor . . . and by the other section of the intelligible I mean that which the Mind itself lays hold of by the power of dialectics, treating its assumptions not as absolute beginnings but literally as hypotheses, underpinnings, footings, and springboards so to speak, to enable it to rise to that which requires no assumption and is the starting-point of all, and after attaining to that again taking hold of the first dependencies from it, so to proceed downward

to the conclusion, making no use whatever of any object of sense, but only of pure ideas moving on through ideas to ideas and ending with ideas. . . .

And now answering to these four sections, assume these four affections occurring in the soul: intellection or reason for the highest, understanding for the second; assign belief to the third, and to the last picture-thinking or conjecture, and arrange them in a proportion, considering that they participate in clearness and precision in the same degree as their objects partake of truth and reality.⁵

In the *Timaeus*, Plato shows how this method of discovery manifests itself in the physical universe. He explains that the spherical bounding of human vision conforms to, and accurately reflects, the harmonic principles embedded in the created world by God the Composer.* This is demonstrated specifically by the role of the five regular solids, both from the standpoint of geometry, and of physics [SEE Figure 1]. Plato summarizes the discoveries from Pythagoras to Theaetetus, that the sphere (and, implicitly, the space it reflects) is not infinitely divis-

* “Wherefore He wrought it into a round, in the shape of a sphere, equidistant in all directions from the center to the extremities, which of all shapes is the most perfect and the most self-similar, since He deemed that the similar is infinitely fairer than the dissimilar.” See footnote 6.

ible, but rather, is restricted to five, and only five, perfectly regular divisions.* This characteristic of the manifold of human vision, manifests itself in the physical universe, by the relationship of the five regular solids to the organization of matter. Astronomy, Plato says in *The Republic*, is the science of solids in motion.

Astronomy, therefore, must seek to find the harmonic principles in the complicated visible motions of the planets, as well as seek out their underlying causes. But, by underlying causes, Plato did not mean mechanical interactions of the “action-reaction” (“push-me/pull-me”) type. Rather, Plato sought the universal principles that guided the motions. Those universal principles were an expression of the intention of the Creator, who composed the world according to Reason. It is that reason which science seeks as the cause of the physical motions.

Plato recognized an inherent paradox in the study of astronomy, however. The visible motions of the planets are not the true ones:

[T]hese sparks that paint the sky, since they are decorations on a visible surface, we must regard, to be sure, as the fairest and most exacting of material things; but we must recognize that they fall far short of the truth, the movements, namely, of real speed and real slowness in true number and in all true figures both in relation to one another and as vehicles of the things they carry and contain. These can be apprehended only by reason and thought, but not by sight . . .

[W]e must use the blazonry of the heavens as patterns to aid in the study of those realities, just as one would do who chanced upon diagrams drawn with special care and elaboration by Daedalus or some other craftsman or painter. For anyone acquainted with geometry who saw such designs would admit the beauty of the workmanship, but would think it absurd to examine them seriously in the expectation of finding in them the absolute truth with regard to equals or doubles or any other ratio.⁵

The resolution of this paradox depends, not upon what is in the sky, but upon what is in the mind. It depends upon the conception of Man’s nature, from which it is approached.

It is in this paradox, that Plato encouraged his students

to seek knowledge of the physical world. Such bold ventures produced the accomplishments of Aristarchus of Samos, who, Archimedes reports, developed a heliocentric concept of the solar system; Eratosthenes of Alexandria, who determined the sphericity of the Earth; and Archimedes, whose discoveries of principles allowed him to proclaim, “Give me a place to stand, and I will move the Earth!”

But, it is also in this paradox, that Aristotle lured the cowardly and the weak-minded away from seeking the truth, arguing that Man’s cognitive powers were ultimately impotent to raise him above his senses. For Aristotle’s physics, the laws governing the Earth were completely different than those governing the heavens. Physical action is not governed by Reason, but rather, is the result of mechanical interactions. Man, bound to the Earth, is doomed to ultimate ignorance on matters concerning the nature of God and the physical universe; he can speculate about God and physics, but the action of his mind, according to Aristotle, is fundamentally separated from them. The only knowable truths, are those conclusions which follow deductively from a given set of axioms, according to the rules of formal logic. Such conclusions, of course, are never susceptible to determination as universal truths, as they depend upon the unprovable validity of the axioms from which they flow.

Aristotle’s separation of the Earth from the heavens, and the human mind from both God and the created world, has been used historically to justify all the unspeakable evils carried out by oligarchical regimes. According to this underlying dogma, law in earthly society does not reflect universal principles, but, rather, as Hitler legal theorist Carl Schmitt and U.S. Supreme Court Justice Antonin Scalia assert, is the arbitrary will of whoever has the power to make the rules. This conforms perfectly to the worldview of the pro-oligarchical cults of Babylon, the Delphic Oracle of Pythian Apollo, or the Roman Mithra-cult which became transmogrified into various pseudo-Christian cults broadly characterized as Gnostic.†

Aristotle was the standpoint adopted by Claudius Ptolemy, who rejected the accomplishments of Plato’s Acade-

* This contradicts the Aristotelian dogma that visible space conforms to the assumption of infinite extension in three linear dimensions, as characterized by the definitions, axioms, and postulates of Euclid’s *Elements*. (On the *Elements*, see n.b. below.) Cusa, and his followers Pacioli, Leonardo, Kepler, and Leibniz, all rejected the Aristotelian view. In reaction to Kepler’s application of Cusa’s discoveries, the Roman/Aristotelian dogma of space was revived by Isaac Newton, Leonhard Euler, and Immanuel Kant. The work of Leibniz follower Abraham Gotthelf Kästner, his student Carl Gauss, and his student Bernhard Riemann, finished off this Aristotelian dogma once and for all. Nonetheless, today many

scientists and laymen alike, demonstrate their intellectual illiteracy by displaying a fool’s reverence for Newton, Euler, and Kant.

N.B. Euclid’s *Elements* is itself a compilation of the basic working knowledge and discoveries of Greek mathematics, including, amongst other things, the theory of the irrationals. It culminates in the construction, and proof of the uniqueness, of the five regular (Platonic) solids—i.e., the demonstration that visible space is bounded. This result is itself paradoxical with respect to the initial definitions, axioms, and postulates, an irony that would have been well-recognized by all collaborators of the Platonic Academy, but, clinically, is unrecognized by most mathematicians today.

my, limiting knowledge to that which could be derived by formal logical deduction from an unchanging, fixed set of axioms, based on the sense impression that the Earth was fixed and unmoved, while the heavenly bodies moved about it in perfect circles. Ptolemy also adopted Aristotle's mechanical explanations of the planetary motions, asserting that the heavens were filled by solid, crystalline spheres, along whose great circles the planets moved. Such motions were produced by the grinding of these solid orbs against one another, and the erratic motions of the planets were governed by a demi-god, a sort of supernatural bus driver, who steered each planet along its course.

The murder of Archimedes marked the ascendancy of this craven mind-set, which gained currency under the Roman Empire as "vox populi," what is today called "popular opinion." A mind-set, as can be seen in the case of Archimedes, that will kill what it can't understand, but instinctively fears.

Learned Ignorance

In *On Learned Ignorance*, Nicolaus of Cusa presents a thorough-composed conception of God, Man, and Nature, and of how the human mind can, through the method of "Learned Ignorance," rise above the senses, and come to know this conception. It would be impossible, as well as unjust and misleading, to present Cusa's dialogue in a reduced form, and claim to have achieved an accurate representation of the ideas. Nevertheless, we attempt, imperfectly, to summarize certain facets of this concept here, for the purpose of tracing its influence on Kepler's astrophysics.

Cusa begins: God placed a desire in all things to exist in the best manner, and he gave them the instruments by which to achieve this end. For Man, the best manner of existence is to know the truth, for which he has been endowed with the powers of cognition. "The intellect insatiably desires to attain unto the true through scrutinizing all things by means of its innate faculty of inference."⁷ The mind judges that which it does not know, by making a comparative relationship with what it does.

However, this presents an inherent paradox for science:

Both the precise combinations in corporeal things and the congruent relating of known to unknown surpass human reason to such an extent that Socrates seemed to himself to know nothing except that he did not know. . . . Therefore, if

the foregoing points are true, then since the desire in us is not in vain, assuredly we desire to know that we do not know. If we can fully attain unto this knowledge or our ignorance, we will attain unto learned ignorance. . . . The more he knows that he is unknowing, the more learned he will be.

So, it is in the nature of knowing the way we do not know, that we are able to gain increasingly less-imperfect knowledge of the truth.

Cusa begins by investigating through Learned Ignorance, the nature of the Absolute Maximum, "which the faith of all nations indubitably believes to be God." This Absolute Maximum, while pure Oneness, is by its very nature triune, comprising oneness, equality, and union.

Ironically, one of Cusa's most important discoveries concerning the principle of Learned Ignorance, was his correction of a conceptual error of Archimedes, specifically the impossibility of squaring the circle.* This discovery provided a means to grasp more clearly the relationship of God to Man and the created world, and also laid the basis for understanding the existence and significance of transcendental magnitudes. Both concepts were crucial to Kepler's later discoveries. Cusa writes,

Whatever is not truth, cannot measure truth precisely. (By comparison, a noncircle cannot measure a circle, whose being is something indivisible.) Hence, the intellect, which is not truth, never comprehends truth so precisely that truth cannot be comprehended infinitely more precisely. For the intellect is to truth as an inscribed polygon is to the inscribing circle. The more angles the inscribed polygon has, the more similar it is to the circle. However, even if the number of its angles is increased *ad infinitum*, the polygon never becomes equal to the circle unless it is resolved into an identity with the circle.

This incommensurability of the curved to the straight, provides the means by which to grasp the relationship between God the Creator, and the created world: the Absolute Maximum bounds the universe in the same way that the circle bounds the polygon. Just as the polygon is derived from the circle, not the circle from the polygon, so the Absolute Maximum unfolds and enfolds the Universe, which is an imperfect likeness of it. The triune nature of the Absolute Maximum is thus expressed in the Universe, as the relationship between the Creator, the Created, and the act of Creation.

But, since the universe is a "contracted maximum," those principles are reflected imperfectly. From this standpoint, Cusa draws specific conclusions concerning the nature of the physical universe:

† Such Gnosticism, in the form of fundamentalist, pseudo-Christian cults, is the dominant worldview of the current George W. Bush Presidency.

* See "Nicolaus of Cusa's 'On the Quadrature of the Circle,'" page 30, this issue.

Wherefore it follows, that, except for God, all positable things differ. Therefore, one motion cannot be equal to another; nor can one motion be the measure of another, since, necessarily, the measure, and the thing measured differ. Although these points will be of use to you regarding an infinite number of things, nevertheless, if you transfer them to astronomy, you will recognize that the art of calculating lacks precision, since it presupposes that the motion of all the other planets can be measured by reference to the motion of the sun. Even the ordering of the heavens, with respect to whatever kind of place, or with respect to the risings and settings of the constellations, or to the elevation of a pole, and to things having to do with these, is not precisely knowable. And since no two places agree precisely in time and setting, it is evident that judgments about the stars are, in their specificity, far from precise.

From these principles, Cusa rejects the fraud of Claudius Ptolemy's geocentric solar system:

Hence, if we consider the various movements of the spheres, we will see that it is not possible for the world-machine to have as a fixed and immovable center, either our perceptible earth or air or fire or any other thing. For, with regard to motion, we do not come to an unqualifiedly minimum, i.e., a fixed center. Hence the world does not have a fixed circumference. . . . Therefore, since it is not possible for the world to be enclosed between a physical center and a physical circumference, the world of which God is the center and the circumference is not understood. . . .

Therefore, the Earth which cannot be the center, cannot be devoid of all motion. Instead, it is even necessary that the Earth be moved. . . .

And since we can discern motion only in relation to something fixed, viz., either poles or centers, and since we presuppose these poles or centers when we measure motions, we find that as we go about conjecturing, we err with regard to all measurements. And we are surprised when we do not find that the stars are in the right position according to the rules of measurement of the ancients.

The concluding statement in the extract, was a declaration that the Emperor—Aristotle—had no clothes. Cusa was stating what anyone could see in the heavens for himself, that the physical universe did not obey the *a priori* assumptions of Aristotle's world of a fixed center. The stars themselves compelled the discovery of a new concept concerning Man and Nature. More importantly, Cusa was demonstrating the method by which the human mind could attain truthful knowledge of the motions of the heavenly bodies.

Kepler's Transformation of Astrophysics

Cusa's revolution began to force a retreat of the Aristotelian control over astronomy. Confronted with the discrepancy between the true motions of the planets, and the

motions predicted by the geocentric system of Claudius Ptolemy, Nicholas Copernicus re-introduced the heliocentric conception of the solar system of Aristarchus of Samos. However, the poison of Aristotle was still embedded in the Copernican system. While he copied the form of Cusa's conclusions, placing the Earth in motion around the sun, Copernicus failed to apply Cusa's method of Learned Ignorance. Under the Copernican system, the planets all revolve around the sun in perfect circles—that is, the non-uniform motion of the planets was ultimately resolved mathematically into uniform circular action—despite the fact that Cusa had already shown that no such perfect motion was possible in the created world. Even more fundamentally, Copernicus would not totally break with the Aristotelian stricture that knowledge of the physical universe, and the principles by which God composed it, were essentially beyond human comprehension. Thus, Copernicus never claimed the heliocentric system was actually *true*, but only that it provided a better means of mathematical computation.

In 1595, Johannes Kepler brought forth his first work on planetary motion, *Mysterium Cosmographicum* (*The Secret of the Universe*), in which Cusa's method of Learned Ignorance was applied to achieve a revolutionary conception of the nature of the physical universe.

As the subtitle of this work indicates, Kepler completely rejected Aristotle and, instead of simply providing just another mathematical model, sought "The true and particular causes of the number, size, and periodic motions of the heavens." By true causes, Kepler understood, as did Plato and Cusa, the Reason, or intention, according to which God composed the universe as he did. As Kepler announced at the beginning of the *Mysterium*:

I pass over in silence the fact that this very matter, of Creation, which the philosophers [Aristotelians—BD] denied, is a strong argument, when we perceive how God, like one of our own architects, approached the task of construction the universe with order and pattern, and laid out the individuals parts accordingly as if it were not art which imitated Nature, but God himself had looked to the mode of building of Man who was to be.⁸

These words of Kepler echo those of Cusa from the *On Learned Ignorance* of nearly 150 years earlier:

Who would not admire this Artisan, who with regard to the spheres, the stars, and the regions of the stars, used such skill that there is, though without complete precision, both harmony of all things and a diversity of all things? This Artisan considered in advance the sizes, the placing, and the motion of the stars in the one world; and He ordained the distances of the stars in such way that unless each region were as it is, it could neither exist nor exist in

such a place and with such an order nor could the universe exist.

Kepler found that the ordering principle determining the number of the planets, their sizes, and the positions of their orbits, was expressed by the proportions of the five perfectly regular solids presented by Plato in the *Timaeus*. Just as important as this result, was the method by which Kepler arrived at it, since it exemplified Cusa's method.

As previously stated, it is already a significant advance to seek the true causes of the motions of the heavenly bodies. But, it was a further revolution to actually determine, "Why it was that way and not otherwise," as Kepler stated in the beginning of the *Mysterium*.

To discover this, Kepler first attempted to find some series of numbers, which would correspond to the actual number of planets and the size of their orbits. Despite

much effort, this proved fruitless. Failing at that, Kepler sought the principle in two dimensions, seeking a series of inscribed and circumscribed polygons, whose proportions would correspond to the number and size of the actual planetary orbits. This too proved fruitless. Finally Kepler made the leap, "Why should there be plane figures between solid spheres? It would be more appropriate to try solid bodies." Thus was born Kepler's discovery that the number, size, and position of the (then-)visible planets, corresponded to the principle of construction of the five Platonic solids [SEE Figure 2].

In the *Mysterium*, Kepler attributes this discovery directly to Cusa's method:

It was matter which God created in the beginning; and if we know the definition of matter, I think it will be fairly clear why God created matter and not any other thing in the beginning. I say that what God intended was quantity.

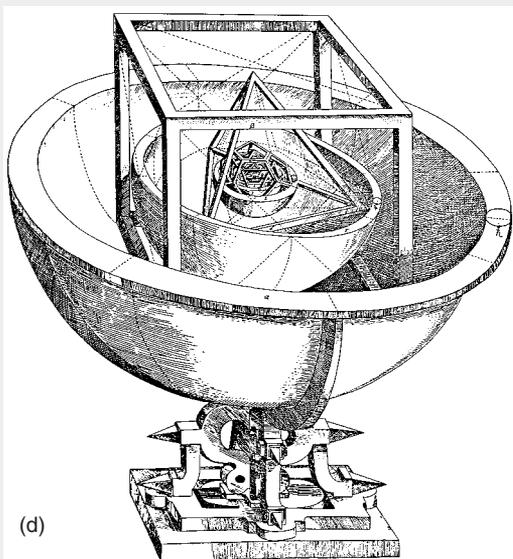
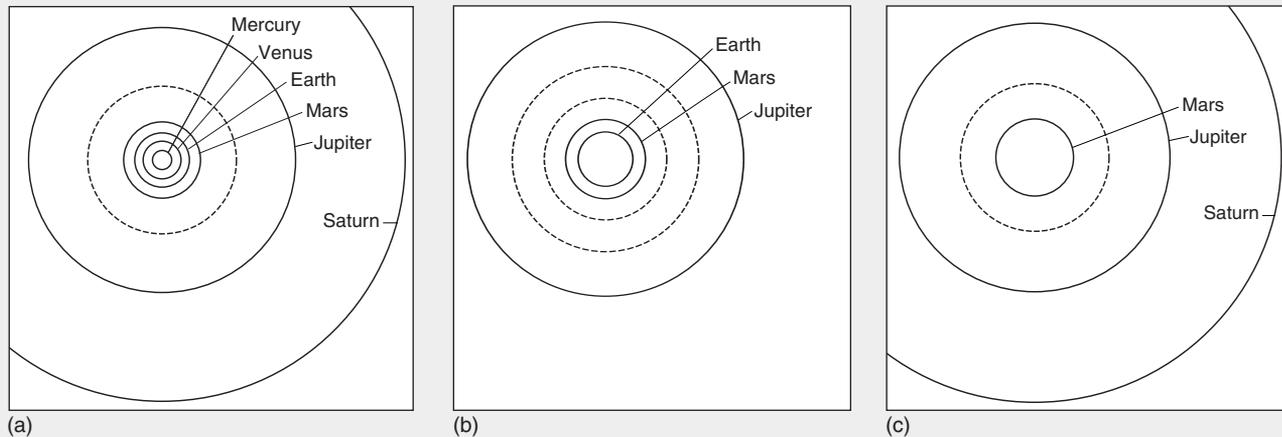
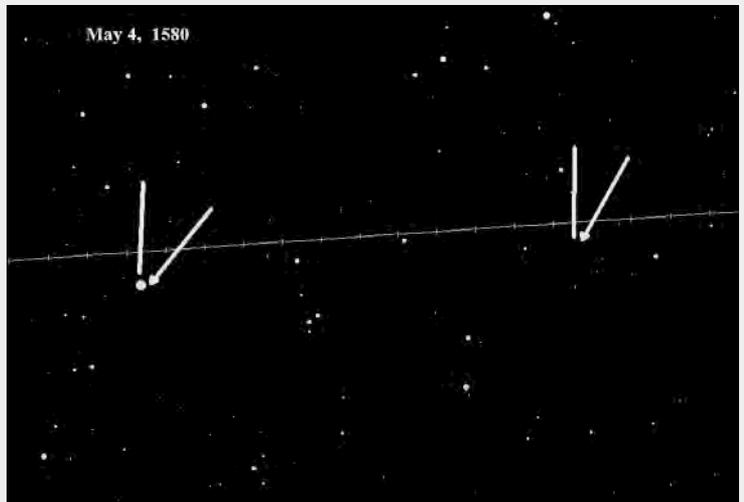


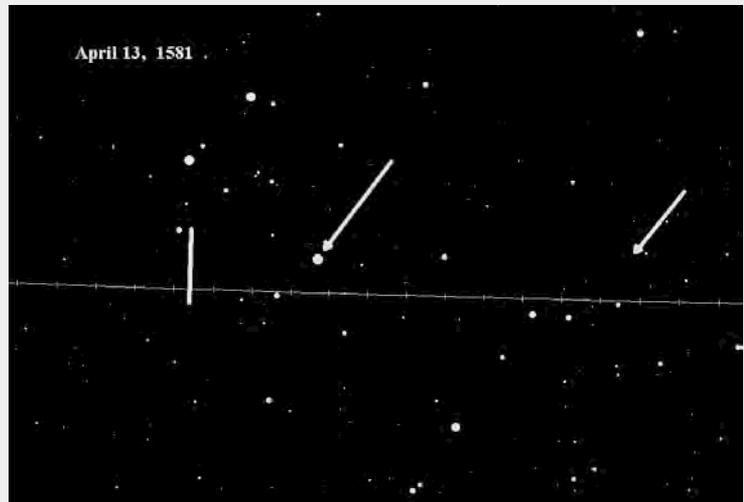
FIGURE 2. The ordering of the number and sizes of the orbits of the six planets visible to the naked eye, does not conform to any sequence of numbers or plane polygons. (a) The relative sizes of the planetary orbits, shown heuristically. (b) If the distance between the orbits of Earth and Mars is extrapolated outward, two orbits should occur between Mars and Jupiter (dashed orbits). (c) If the distance between the orbits of Saturn and Jupiter is extrapolated inward, one orbit should occur, where, in fact, no planets visible to the naked eye exist. Kepler discovered that the ordering of the visible planets corresponded to the ordering achieved by inscribing and circumscribing spheres around the five Platonic solids, in the order depicted in illustration (d) from the "Mysterium Cosmographicum."

Kepler later showed that the anomaly between Mars and Jupiter corresponded to a dissonance in the harmonic relationships between the orbits. In 1801, Carl F. Gauss confirmed Kepler's hypothesis, when he demonstrated that the orbits in this region were "unstable," and it was populated with planetary fragments, which today are called asteroids [dashed orbit in (a)]. [See Jonathan Tennenbaum and Bruce Director, "How Gauss Determined the Orbit of Ceres," *Fidelio*, Summer 1998 (Vol. VII, No. 2).]

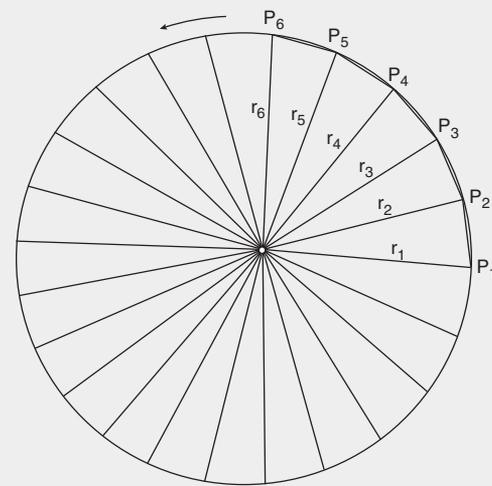
FIGURE 3. Careful observation of the motions of the planets shows their movements to be non-uniform; that is, the planets are always speeding up or slowing down as they move across the sky. (a) Star chart showing two positions of Mars, thirty days apart. The distance Mars has moved against the background of stars is approximately 18° . (b) Two positions of Mars, thirty days apart, in a different part of its orbit. Here Mars has only moved approximately 14° against the background of stars. (c) Diagram of the entire Mars orbit, divided into equal time portions. Notice that the distance Mars moves in P1-P2 is greater than in P2-P3, etc.



(a)



(b)



(c)

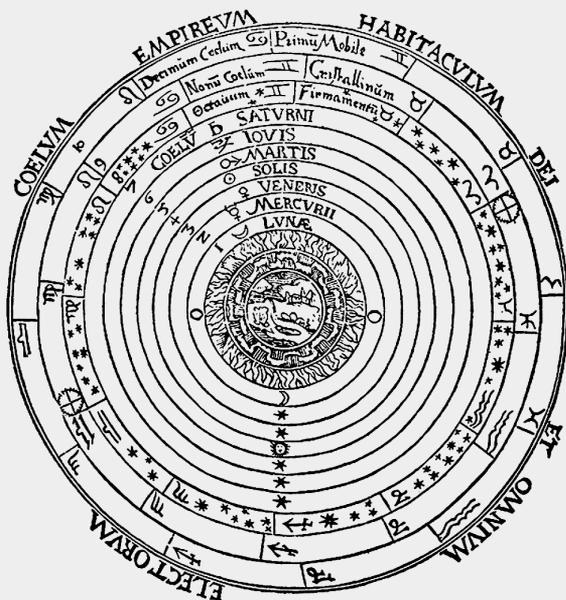
To achieve it he needed everything which pertains to the essence of matter; and quantity is a form of matter, in virtue of its being matter, and the source of its definition. Now God decided that quantity should exist before all other things so that there should be a means of comparing a curved with a straight line. For in this one respect Nicolaus of Cusa and others seem to me divine, that they attached so much importance to the relationship between a straight and a curved line and dared to liken a curve to God, a straight line to his creatures; and those who tried to compare the Creator to his creatures, God to Man, and divine judgments to human judgments did not perform much more valuable a service than those who tried to compare a curve with a straight line, a circle with a square.

And although under the power of God this alone would have been enough to constitute the appropriateness of quantities, and the nobility of a curve, yet to this was also added something else which is far greater; the image of God the Three in One in a spherical surface, that is of the

Father in the center, the Son in the surface, and the Spirit in the regularity of the relationship between the point and the circumference. For what Nicolaus of Cusa attributes to the circle, others as it happens have attributed to the globe; but I reserve it solely for a spherical surface.

The significance of Cusa's demonstration of the transcendental relationship between the curved and the straight, was thus demonstrated by Kepler to manifest itself in the actual construction of the physical universe. Kepler's further discoveries demonstrated that this manifestation was not simply limited to the role of the Platonic solids in the construction of the heavens, but, as Cusa himself understood, was embedded in the very nature of the physical action.

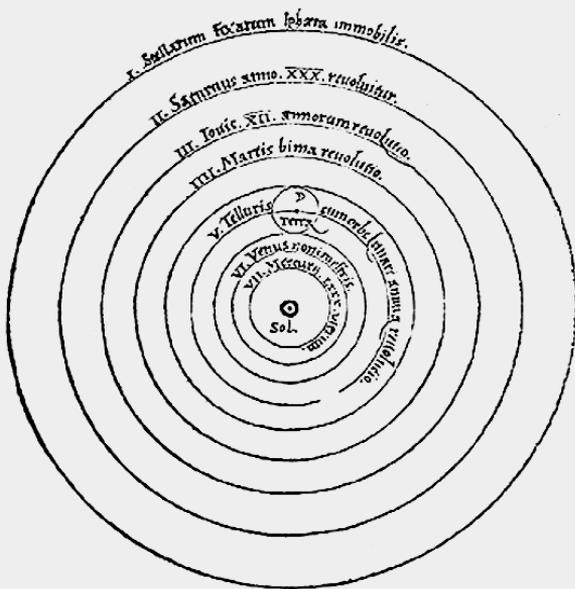
Kepler's 1609 *The New Astronomy* is based on this deeper manifestation of the transcendental relationship between the curved and the straight. Kepler's polyhedral



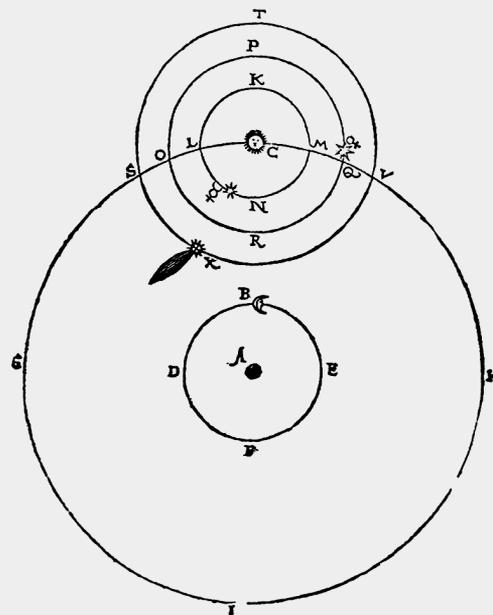
(a) Ptolemaic system: Earth-centered.

FIGURE 4. (a) The Ptolemaic system, with the Earth at the center and all the planets and the sun moving around it in perfect circles. (b) The Copernican system, with the sun at the center, and all the planets, including the Earth, moving around it in perfect circles. (c) The system of Tycho Brahe, in which the Earth is at the center, and all the planets move about the sun in perfect circles, while the sun moves about the Earth in a perfect circle.

In "The New Astronomy," Kepler demonstrated that all three systems gave exactly the same computational results, so there was no way to tell which one was true. Despite the fact that all three were radically different, there was a common error that pervaded them. All three were mathematical models for the purpose of predicting the motions of the planets, while making no attempt to discover the physical causes. Consequently, all three imposed the mathematics of perfect circles and uniform motion onto the planetary orbits, when the physical observations showed otherwise.



(b) Copernican system: sun-centered.



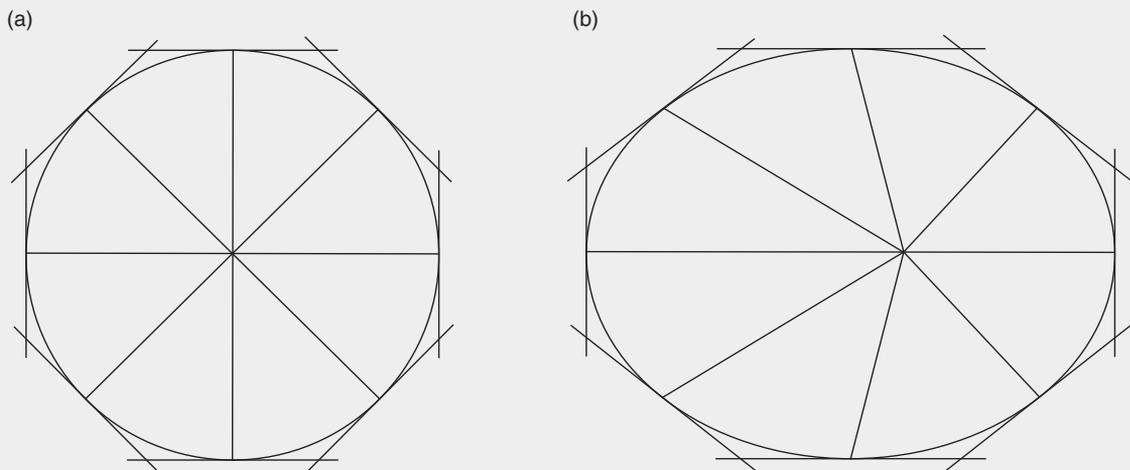
(c) System of Tycho Brahe: mixed Earth- and sun-centered.

hypothesis, that the number and size of the planetary orbits were determined by inscribing and circumscribing spheres around the five Platonic solids, was not sufficient to account fully for the true motions of the planets. Orbits derived from this hypothesis, were circles. The true motions of the planets indicated the existence of another principle—namely, that the planets do not move uni-

formly in their orbits. They can be observed to be always speeding up to a maximum speed and slowing down to a minimum [SEE Figure 3].

Ptolemy, Copernicus, and Kepler's sometime collaborator, Tycho Brahe, all calculated this observed non-uniform motion as a result of colligating circles [SEE Figure 4]. Here, Kepler pointed out that the three radically dif-

FIGURE 5. (a) *Uniform circular action.* The direction of the planet, represented by the tangents to the circle, is always perpendicular to the lines connecting it to the center of the orbit. A mind trying to maintain a circular orbit, would thus have only to keep its speed and direction constant, in order to maintain this orbit. Once it started along this path, it could maintain it without any change (decisions). (b) *Non-uniform elliptical action.* Here, the direction of the planet, shown by the angle formed by the tangent and the line connecting it to the focus of the orbit, is always changing, as is its speed. A mind trying to maintain this orbit would have to make a decision at each moment, how much to speed up or slow down, and how much to alter its direction. The existence of such action implies the existence of a principle congruent with cognition in the physical universe.



ferent systems shared a common error, the embedded error of Aristotle. All three imposed, *a priori*, the mathematics of perfect circles—and hence, assumed the reality of uniform motion—on the physical universe: “The three opinions are for all practical purposes equivalent to a hair’s breadth, and produce the same results,” he wrote, in the introduction to *The New Astronomy*.

Consequently, it is impossible to tell which of the three opinions is true, says Kepler. The common error in all three opinions is, that they assume a pre-existing mathematical structure (perfect circles), and then force the physical observations to conform to that mathematical idea. As Copernicus puts it in his *Revolutions of the Heavenly Spheres*: “The movement of the celestial bodies is regular, circular, and everlasting—or else compounded of circular movements.” But, the observed motions of the planets are not regular, so why assume *a priori* that these motions must derive from circles?

Kepler took a completely different, revolutionary approach, one based on Plato and Cusa. Rather than force the observations to conform to pre-existing mathematical assumptions, he sought the physical reason for the observed non-uniform motion, and then conformed his mathematics to that physical hypothesis:

Indeed, all things are so interconnected, involved, and intertwined with one another that after trying many different approaches to the reform of astronomical calculations,

some well trodden by the ancients and others constructed in emulation of them and by their example, none other could succeed than the one founded upon the motions physical causes themselves, which I establish in this work.

What was so frightening about the planets having non-uniform motion, that it kept Aristotle’s grip over three very different types of thinkers, such as Ptolemy, Brahe, and Copernicus? Again, Cusa gives the answer.

If the planets were moving uniformly about the sun in perfect circles, then each planet’s motion would be governed by an unchanging principle; that is, its speed would be constant, it would always be the same distance from the sun (or Earth), and its direction would always be at a right angle to a line connecting the planet to the sun [SEE Figure 5(a)]. However, if the planets were moving non-uniformly, the speed and direction would be constantly changing [Figure 5(b)]. Kepler demonstrates that the relationship of the speed and direction of the planet at each moment, to the characteristic of the whole orbit, depends on those transcendental magnitudes discovered by Cusa.

This implies that a quality of cognition, or Mind, is governing the planet’s motion. But, how does the planet know how to adjust its speed and direction at each moment? And, more significantly, and more terrifying to an Aristotelian, How can the human mind know what

the planet knows? Especially, since the planet's action depends upon just those transcendental magnitudes, which Cusa had demonstrated were not susceptible to precise mathematical calculation?

This problem is not so terrifying for a thinker who follows Cusa's principle of Learned Ignorance. As cited above, Cusa had already stated that physical action could not occur according to perfect circles, and that precise calculation of a planet's motion is as impossible as squaring the circle. Rather than cringe at the expression of transcendental magnitudes, Cusa's Learned Ignorance teaches us to rejoice at this paradox, as it urges us on to new discoveries. But, the question remains, What is the underlying principle that expresses itself as the quality of Mind, governing the planet's orbit?

That quality of Mind is not, as Aristotelians such as Ptolemy maintained, an irrational demi-god residing in each planet, possessed with innate intelligence, and capable of arbitrary action. Rather, each planet acts as if it had a Mind, because its action expresses an intention of the underlying principles governing the universe as a whole. That is, the planet's motion expresses the intention of the Divine Mind, whose intentions also govern the human Mind, created in the image of God.

This Keplerian concept of Mind is congruent with the thinking of Plato and Cusa. For example, in *On Learned Ignorance*, Cusa revives Plato's concept of Mind, resituating it from the standpoint of Christianity, and cleaning up the influence of Aristotle on the medieval Neo-Platonists, who, in Cusa's time, were the dominant exponents of Platonism:

All wise agree that possible being cannot come to be actual except through actual being, for nothing can bring itself into actual being, lest it be the cause of itself, for it would be before it was. . . . Some called this excellent actualizing nature "mind"; others called it "intelligence," others "world-soul," others, "fate-substantiated," others (e.g., Platonists) "connecting necessity."

However, the following view was acceptable to the Platonists: that such distinct plurality of exemplars in the connecting necessity is in a natural order from one infinite Essence, in which all things are one. Nevertheless, they did not believe that the exemplars were created by this one infinite Essence, but that they descended from it in such way that the statement, "God exists," is never true without the statement, "The world exists," also being true. And they affirmed that the world-soul is the unfolding of the Divine Mind, so that all things which in God are one Exemplar are, in the world-soul, many distinct exemplars. . . .

Many Christians consented to this Platonistic approach. Especially since the essence of stone is distinct from the

essence of man and in God there is neither differentiation nor otherness, they thought it necessary that these distinct essences (in accordance with which, things are distinct) be subsequent to God but prior to things (for the essence precedes the thing): and they thought this too with regard to intelligence, the mistress of the orbits. . . .

The Platonists spoke quite keenly and sensibly, being reproached, unreasonably, perhaps, by Aristotle, who endeavored to refute them with a covering of words rather than with deep discernment. But through learned ignorance I shall ascertain what the truer view is. . . .

Therefore, it is necessary to understand clearly the following matters; since a Platonic-type world-soul must be regarded as a certain universal form which enfolds in itself all forms but which has actual existence only contractedly in things and which in each thing is the contracted form of this thing, as was said earlier regarding the universe: then not such a world-soul but God who is one Word creates all things, regardless of how different from one another they are, is efficient, the formal and the final Cause of all things; and there can be no created thing which is not diminished from contraction and does not fall infinitely short of the divine work. God alone is absolute: all other things are contracted. Nor is there a medium between the Absolute and the contracted as those imagined who thought that the world-soul is mind existing subsequently to God but prior to the world's contraction. For only God is "world-soul": and "world-mind" in a manner whereby "soul" is regarded as something absolute in which all the forms of things exist actually. Indeed, the philosophers were not adequately instructed regarding the Divine Word and Absolute Maximum. And so, they envisioned mind and soul and necessity as present uncontractedly in a certain unfolding of Absolute Necessity.

The Harmonies: A Still More Basic Principle

From these considerations, Kepler came to the discovery that the non-uniform motion of the planets was not simply an appearance, but was the true physical motion. This led him to the ultimate discovery, that the principle governing this non-uniform motion was expressed in the principle, "equal areas, equal times," and that the orbits of the planets were, in first approximation, elliptical [SEE Figure 6].

But this left open the question, What were the principles governing the determination of the eccentricities?, since Kepler's polyhedral hypothesis accounts only for circular orbits.

Pursuing Cusa's method further, Kepler sought "a still more basic principle," which would answer the question, Why these eccentricities and not others?

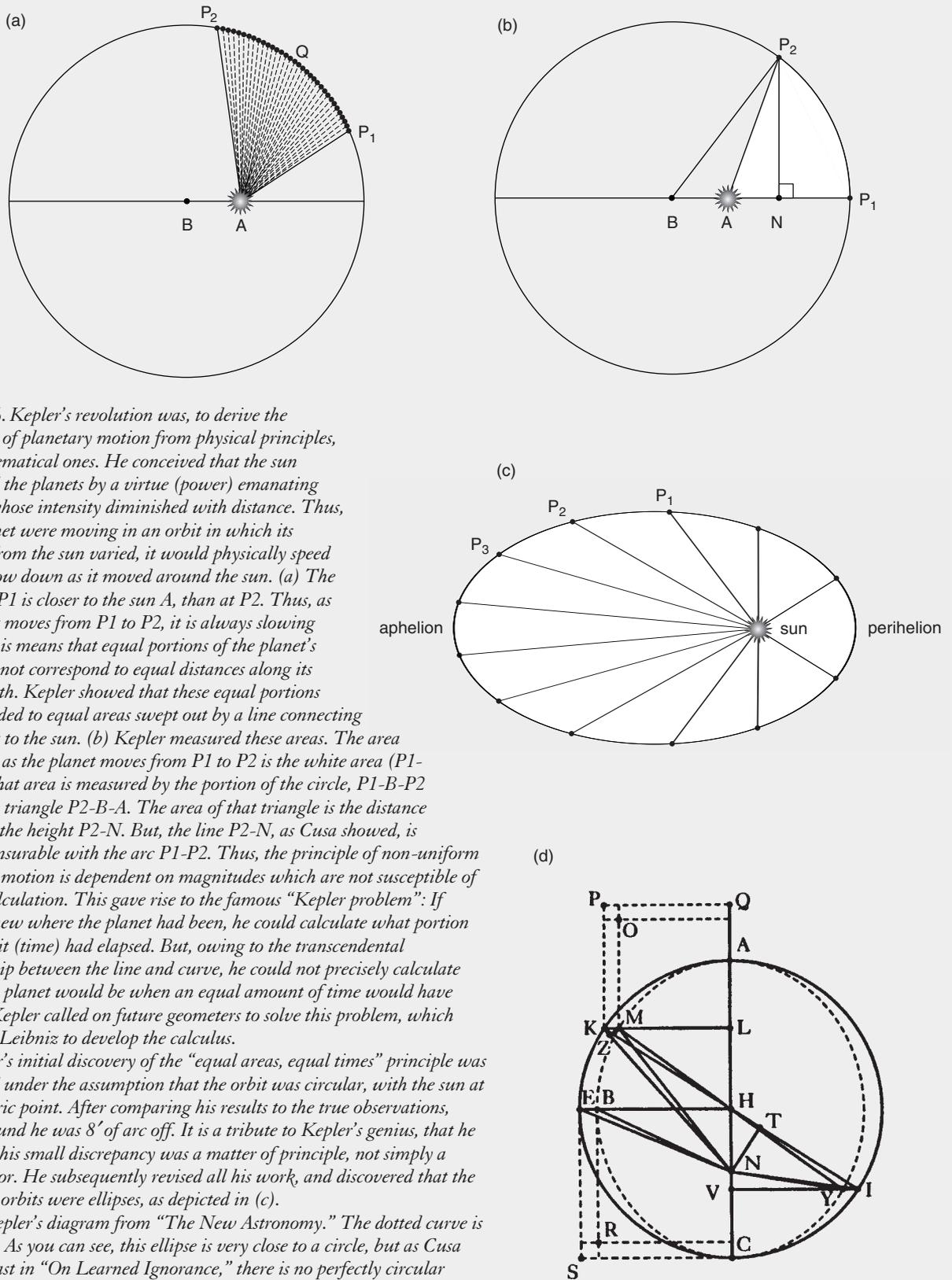


FIGURE 6. Kepler's revolution was, to derive the principles of planetary motion from physical principles, not mathematical ones. He conceived that the sun moved all the planets by a virtue (power) emanating from it, whose intensity diminished with distance. Thus, if the planet were moving in an orbit in which its distance from the sun varied, it would physically speed up and slow down as it moved around the sun. (a) The planet at P1 is closer to the sun A, than at P2. Thus, as the planet moves from P1 to P2, it is always slowing down. This means that equal portions of the planet's period do not correspond to equal distances along its orbital path. Kepler showed that these equal portions corresponded to equal areas swept out by a line connecting the planet to the sun. (b) Kepler measured these areas. The area swept out as the planet moves from P1 to P2 is the white area (P1-P2-A). That area is measured by the portion of the circle, P1-B-P2 minus the triangle P2-B-A. The area of that triangle is the distance BA times the height P2-N. But, the line P2-N, as Cusa showed, is incommensurable with the arc P1-P2. Thus, the principle of non-uniform planetary motion is dependent on magnitudes which are not susceptible of precise calculation. This gave rise to the famous "Kepler problem": If Kepler knew where the planet had been, he could calculate what portion of the orbit (time) had elapsed. But, owing to the transcendental relationship between the line and curve, he could not precisely calculate where the planet would be when an equal amount of time would have elapsed. Kepler called on future geometers to solve this problem, which provoked Leibniz to develop the calculus.

Kepler's initial discovery of the "equal areas, equal times" principle was developed under the assumption that the orbit was circular, with the sun at an eccentric point. After comparing his results to the true observations, Kepler found he was 8' of arc off. It is a tribute to Kepler's genius, that he saw that this small discrepancy was a matter of principle, not simply a minor error. He subsequently revised all his work, and discovered that the planetary orbits were ellipses, as depicted in (c).

(d) Kepler's diagram from "The New Astronomy." The dotted curve is an ellipse. As you can see, this ellipse is very close to a circle, but as Cusa had forecast in "On Learned Ignorance," there is no perfectly circular motion in the created world.

To answer this question, Kepler looked to the relationship between the maximum and minimum speeds of the planets, and found this relationship to correspond to musical harmonies [SEE Figure 7]. As he stated in the introduction to Book IV of *The Epitome of Copernican Astronomy*,

In the farthest movements of any two planets, the universe was stamped with the adornment of harmonic proportions, and accordingly, in order that this adornment might be brought into concord with the movements, the eccentricities which fell to the lot of each planet had to be brought into concord.⁹

Kepler's harmonic orderings, once again, revealed a new manifestation of concepts originally brought forward by Cusa. The harmonic intervals, which Kepler found to be reflected among the planetary orbits, were, like the individual motions of the planets, dependent on transcendental magnitudes, a result anticipated by Cusa in *On Learned Ignorance*:

Press onward: Conformably to the rule, there is no precision in music. Therefore it is not the case that one thing perfectly harmonizes with another in weight or length or thickness. Nor is it possible to find between the different sounds of flutes, bells, human voices, and other instruments comparative relations which are precisely harmonic, so precisely that a more precise one could not be exhibited. . . . Ascend now to the the recognition that the maximum, most precise harmony is an equality-of-comparative relation which a living and bodily man cannot hear. For since this harmony is every proportion (ratio), it would attract to itself our soul's reason [ratio] just as infinite Light attracts all light so that the soul, freed from perceptible objects, would not without rapture hear with the intellect's ear this supremely concordant harmony. A certain immensely pleasant contemplation could here be engaged in not only regarding the immortality of our intellectual, rational spirit (which harbors in its nature incorruptible reason, through which the mind attains, of itself, to the concordant and the discordant likeness in musical things), but also regarding the eternal joy into which the blessed are conducted, once they are freed from the things of this world. But I will deal with this topic elsewhere.

Harmonies Between Two Planets		Apparent Diurnal Movements		Harmonies Between the Movements of Single Planets
<i>Diverging</i>	<i>Converging</i>			
$\frac{a}{d} = \frac{1}{3}$	$\frac{b}{c} = \frac{1}{2}$	Saturn at aphelion	1'46" a.	1 : 48" : 2'15" = 4 : 5, major third
		at perihelion	2'15" b.	
$\frac{c}{f} = \frac{1}{8}$	$\frac{d}{e} = \frac{5}{24}$	Jupiter at aphelion	4'30" c.	4'35" : 5'30" = 5 : 6, minor third
		at perihelion	5'30" d.	
$\frac{e}{h} = \frac{5}{12}$	$\frac{f}{g} = \frac{2}{3}$	Mars at aphelion	26'14" e.	25'21" : 38'1" = 2 : 3, the fifth
		at perihelion	38'1" f.	
$\frac{g}{k} = \frac{3}{5}$	$\frac{h}{i} = \frac{5}{8}$	Earth at aphelion	57'3" g.	57'28" : 61'18" = 15 : 16, semitone
		at perihelion	61'18" h.	
$\frac{i}{m} = \frac{1}{4}$	$\frac{k}{l} = \frac{3}{5}$	Venus at aphelion	94'50" i.	94'50" : 98'47" = 24 : 25, diesis
		at perihelion	97'37" k.	
		Mercury at aphelion	164'0" l.	164'0" : 394'0" = 5 : 12, octave and minor third
		at perihelion	384'0" m.	

FIGURE 7. After discovering that the planetary orbits were eccentric, Kepler sought to discover a "more basic principle" that would account for the reason for the particular eccentricities they exhibited. He measured each planet's maximum speed when it was closest to the sun (perihelion), and the minimum speed when the planet was farthest from the sun (aphelion), as if he were observing the planet's motion from the sun itself. Then, comparing the speeds of neighboring planets, he found that the ratios of these intervals corresponded to those intervals which human beings considered harmonic in musical compositions. Shown are a chart of the ratios at perihelion and aphelion (above), and their representations as musical intervals (below), taken from "The New Astronomy."

[In Modern notation:]

These musical paradoxes, sparked by Cusa and Kepler, laid the groundwork for their more complete elabora-

tion, in the domain of musical composition, by J.S. Bach's development of the well-tempered system of polyphony.

Kepler developed his completed hypothesis of planetary motion in his 1619 *Harmonies of the World*. At the conclusion of that work, Kepler appended an "Epilogue Concerning the Sun by Way of Conjecture," which provides a poetical summary of the development of his ideas from Pythagoras through Cusa:

From the celestial music to the hearer; from the Muses to Apollo the leader of the Dance; from the six planets revolving and making consonances, to the sun at the center of all the circuits, immovable in place, but rotating into itself. . . .

[N]ot only does light go out from the sun into the whole world, as from the focus or eye of the world, as life and heat from the heart, as every movement from the King and mover, but conversely also by royal law these returns, so to speak, of every lovely harmony are collected in the sun from every province in the world, nay, the forms of movements by two's flow together and are bound into one harmony by the work of some mind. . . .

By that commencement, at the same time, he [Proclus] indicates what the Pythagoreans understood by the word of fire . . . and at the same time he transfers his whole hymn from the body of the sun and its quality and light, which are sensibles, to the intelligibles, and he has assigned to that intellectual fire of his—perhaps the artisan fire of the Stoics—to that created God of Plato, that chief or self-ruling mind, a royal throne in the solar body, confounding into one the creature and Him through Whom all things have been created. But we Christians, who have been taught to make better distinctions, know that this eternal and uncreated "Word," Which was "with God" and Which is contained by no abode, although He is within all things, excluded by none. . . .

[A]s for the remainder concerning that abode, we believe it superfluous to inquire into it too curiously or to forbid the senses or natural reasons to investigate that

which the eye has not seen nor the ear heard and into which the heart of man has not ascended; but we duly subordinate the created mind—of whatsoever excellence it may be—to its Creator, and we introduce neither God-intelligences with Aristotle and the pagan philosophers nor armies of innumerable planetary spirits with Magi, nor do we propose that they are either to be adored or summoned to intercourse with us by theurgic superstitions, for we have a careful fear of that . . .

But if it is permissible, using the thread of analogy as a guide, to traverse the labyrinths of the mysteries of nature, not ineptly, I think, will someone have argued as follows: The relation of the six spheres to their common center; thereby the center of the whole world, is also the same as that of unfolded Mind (*dianoia*) to Mind (*nous*), according as these faculties are distinguished by Aristotle, Plato, Proclus, and the rest; and the relation of the single planets' revolutions in place around the sun to the unvarying rotation of the sun in the central space of the whole system . . . is the same as the relation of unfolded Mind to Mind, that of the manifold discourses of ratiocination to the most simple intellection of the mind. For as the sun rotating into itself moves all the planets by means of the form emitted from itself, so too—as the philosophers teach—Mind, by understanding itself and in itself all things, stirs up ratiocinations, and by dispersing and unrolling its simplicity into them, makes everything understood. And the movements of the planets around the sun at their center and the discourses of ratiocinations are so interwoven and bound together that, unless the Earth, our domicile, measured out the annual circle, midway between the other spheres—changing from place to place, from station to station—never would human ratiocination have worked its way to the true intervals of the planets and to the other things dependent from them, never would it have constituted astronomy.¹⁰

And so, it is fitting that anyone wishing to study astronomy today, should begin by first getting to know Nicolaus of Cusa, whose 600th birthday we celebrate this year.

NOTES

1. Aeschylus, *Prometheus Bound*, ed. by Herbert Weir Smyth, www.perseus.tufts.edu.
2. See, e.g., Lyndon H. LaRouche, Jr., *Now, Are You Ready To Learn Economics?* (Washington, D.C.: EIR News Service, 2000).
3. Johannes Kepler, *The New Astronomy (Astronomia Nova)*, trans. by William Donahue (Cambridge: Cambridge University Press, 1992).
4. See Philo, "On the Account of the World's Creation Given by Moses," trans. by F.H. Colson and G.H. Whitaker, in *Philo, I*, Loeb Classical Library (Cambridge, Mass.: Harvard University Press, 1929).
5. Plato, *The Republic*, trans. by Paul Shorey, in *Plato, VI* (Books VI-X), Loeb Classical Library (Cambridge, Mass.: Harvard University Press, 1935).
6. Plato, *Timaeus*, trans. by R.G. Bury, in *Plato, IX*, Loeb Classical Library (Cambridge, Mass.: Harvard University Press, 1929).
7. *Nicholas of Cusa on Learned Ignorance: A Translation and Appraisal of De Docta Ignorantia*, trans. by Jasper Hopkins (Minneapolis: Arthur Banning Press, 1985), 2nd edition.
8. Johannes Kepler, *Mysterium Cosmographicum (The Secret of the Universe)*, trans. by A.M. Duncan (New York: Abaris Books, 1981).
9. Johannes Kepler, *Epitome of Copernican Astronomy: Books IV and V*, trans. by Charles Glenn Wallis, in *Great Books of the Western World* (Chicago: Encyclopedia Britannica, 1939).
10. Johannes Kepler, *The Harmonies of the World (Harmonice Mundi)*, trans. by Charles Glenn Wallis, in *Great Books of the Western World, ibid.*



A SYMPOSIUM ON THE 600TH ANNIVERSARY OF THE BIRTH OF CARDINAL NICOLAUS OF CUSA

Nicolaus of Cusa: A Great Man of Ecumenicism

For one week during March, members and friends of the Schiller Institute, in Hanover, Hamburg, and Berlin, celebrated the 600th birthday of Nicolaus of Cusa (1401-1464). This was also the debut of the “Tell Group” of Hanover, named for the Schiller drama *Wilhelm Tell*: they are attempting to restore to life the culture of the salon. In the salons of the Eighteenth and Nineteenth centuries, people gathered, drank good wine, recited poems, discussed philosophical works, and presented music. In this current salon, called the “Schiller Salon,” the idea is not only to have a good time together, but to discuss classical ideas, which have become rare today.

On these evenings, the members of the Schiller Salon attempted to discuss truth, belief, and reason—not simple concepts, as was seen by the level of the debate afterwards. There were many questions, and misunderstandings, owing to the contemporary *zeitgeist*, which often denies the existence of truth altogether. But the lively interest proved, again, that



In March, members of the Schiller Institute “Tell Group” performed selections from works by Cusa, Lessing, and Schiller, at Cusa birthday celebrations in Germany.

today’s citizens and public need not only television culture, and that especially in today’s time, people are hungry for food for thought, and exchange of ideas.

The important person who set the tone for evening, was the “birthday boy” Cardinal Nicolaus of Cusa himself. He was enhanced by ideas of Gotthold Lessing and Friedrich

Schiller. The evening was opened by a musical presentation by Jean-Sebastien Tremblay, who played a movement of the Solo 'Cello Suites by Johann Sebastian Bach. Afterwards, Renate Müller de Paoli “interviewed” the Cardinal himself (portrayed by Frank Hahn). This dialogue was written by Cusa expert, and president of the Cusanus

Gesellschaft (Cusa Society), Helmut Gestrich, of Bernkastel-Kues (the birthplace of Cusa, his name being Kues in German). Through this, the period of Cusa's life came alive, and important developments of his life were mentioned. For example, the fact that Cusa went from being a bishop, to a cardinal, was remarkable, because Cusa himself was not an aristocrat, and at that time these Church positions were usually reserved only for aristocrats.



Courtesy of Dr. Helmut Gestrich, Cusanus-Gesellschaft, Bernkastel-Kues

View of Padua, where Cusa received his law degree in 1423.

Developments In His Life

In the interview, the following aspects of Cusa's life were touched upon.

Nicolaus of Cusa was the son of a well-off fisherman, in the town of Kues, on the Mosel River. At the age of twelve, he attended the school of the Brothers of the Common Life, in the Dutch town of Deventer. His family had friendly connections with this school. In the year 1416, he matriculated at the University of Heidelberg, as a clergyman of the Diocese of Trier, but he left the city after one year, because he felt he could learn nothing more in this town. Instead, he went to the Faculty of Law at Padua, where, in the fall of 1423, he received a degree. He then swore an oath of faith to this university, and the Bishop gave him the power of authority, to teach the subject of canon law.

Starting in 1425, he studied in Cologne, and devoted himself to the study of the history of the sources of law and the Church. He developed a mastery of a critical study of sources of law, which brought him scientific fame, and increasing influ-

ence in the Church.

He became truly famous, though, in the years 1433-34, at which time he presented his first great work, *De concordantia catholica* (*On Catholic Concordance*), to the Council of Basel. At this time, there was a fight within the Church, as to whether the highest authority lay with the Pope, or with the Council; Cusa answered this question, by stating that the Pope and the Council are the Church. Cusa first supported the "Reform Movement" of the Council, against the Pope, and later the Pope, against the divided Council. But his actions were guided always by an attempt to maintain the unity of the Church and Christendom, on all levels.

On the Dec. 20, 1448, Nicolaus of Cusa was appointed Cardinal. In 1451-52, he went on a great diplomatic tour throughout Germany. Already, in 1450, Pope Nicholas V had appointed him Bishop of Brixen, in Tyrol.

The Peace of Faith

Nicolaus of Cusa made prophetic warnings, and was an influence on his time, as shown in his remarkable

writing *De pace fidei* (*On the Peace of Faith*). The main focus of the entire salon was recitation from this dialogue, performed by eight members of the Tell Group.

In this piece, Cusa outlines, for the future, a path for reconciliation of the faiths of the world. Cusa was part of a three-person papal delegation which travelled to Constantinople, to negotiate the union of the Greek Orthodox Eastern Church with the Western Church of

Rome. These negotiations were the basis for convening the Council of Unity, in Ferrara, and later Florence, which ended in the unity of the Greek and Roman Churches. But, in 1453, Constantinople was conquered and destroyed by the Turks. The horrors that resulted were the reason that Cusa wrote *De pace fidei*, as he describes in his introduction to this work.

He describes there, his idea to bring together the different faiths into a "single and happy unity," and to form an eternal peace. Surely, many in the audience were reminded of current events, in which different religions are used to pit various groups against each other, and cause wars.

The scenes performed take place in the presence of God, when "a man, who once saw that region [the conquered Constantinople], with zeal for God, amongst many sighs, asks the Creator of all things, if, in His kindness, He might moderate the persecution, which raged, more than usual, on account of diverse religious rites." Following this, one leader of those persecuted, and the Word-Become-Flesh of God, invite

the representatives of the different religions—including a Greek, an Italian, a Persian, a Tatar, and the Apostle Paul—to a gathering in Jerusalem.

The Greek expresses the wish, that the differences of the religions be brought together into a unanimity of peace. He then points out the fact that this would be quite difficult, because the different peoples of the world have defended their religions with blood.

The Word-of-God answers the representatives of the different peoples, as follows: “You will not find another faith, but rather, one and the same, single religion, presupposed everywhere. You who are now present here are called wise men, by the sharers of your language, or at the very least, philosophers or lovers of wisdom. . . . If you all, therefore, love wisdom, do you not presuppose that this wisdom exists?” All gathered there answer, that nobody can doubt this, and the Word attempts, using the example of knowledge, to explain that all religions have one source: “There can only be one wisdom. For, if it were possible that there be several wisdoms, then these would have to be from one. Namely, unity is prior to all plurality.” The Greek then answers: “None of us doubts, but that there is one wisdom, which we all love and on account of which, we are called philosophers. Because of participation in it, there are many wise men, whereas wisdom itself remains simple and undivided in itself.”

Here, Cusa presents his idea, that despite the differences, everything has an origin in the idea of unity, that the different religions have a common source, and

only in the way they are practiced, are they different.

Now, the Tatar speaks of the different forms of practice: “The Tatars, a numerous and simple people, who worship the one God above others, are astounded over the variety of rites which others have, who worship one and the same God with them. They deride the fact that some Christians, all Arabs, and Jews are circumcised, that others are marked on their brows with a brand, others are baptized. Furthermore, there is such great diversity in respect to matrimony; the one has only one wife, another is legally married to one wife, but nevertheless has several concubines, yet another has several lawful wives. As regards sacrifice, the rites are so diverse, that one cannot even enumerate them. . . . However, as long as there is not a union, the persecution will not cease. For diversity produces division and enmities, hatred, and war.”

The Apostle Paul answers: “It must be shown, that the salvation of the soul is granted, not on the basis

of works, but rather on account of faith. For Abraham, the father of the faith of all the believing, whether they are Christians, Arabs, or Jews, believed in God, and he was reckoned to be justified If that is admitted, then the various kinds of rites are not disturbing, for they are instituted and received as sensible signs of the variety of faith. The signs, not the signified, assume variability.” As a conclusion, Paul says: “The divine commandments are very brief, and are well known, and common in every nation, for the light that reveals them to us is created along with the rational soul. For within us, God says to love Him, from whom we received being, and to do nothing to another, except that which we wish done to us. Love is therefore the fulfillment the law of God, and all laws are reduced to this.”

Through this, Nicolaus of Cusa had already, at that time, disproved those who call for the clash of civilizations, and paved the way for ecumenicism.



The Council of Basel, woodcut illustration.

Lessing's *Nathan the Wise*

After a short pause, the second part of the program started, which was dedicated to a few of the intellectual descendants of Nicolaus of Cusa. The second part was also opened with music. This time, it was a work by one of the sons of J.S. Bach, Carl Philipp Emanuel's 'Cello Sonata, performed by Jean-Sebastien Tremblay and Birgit Brenner. C.P.E. Bach was a friend of Gotthold Ephraim Lessing, the author of the play *Nathan the Wise*. The music was followed by two poems by Lessing, “*Die drei Reiche der Natur*” (“The Three Kingdoms of Nature”), and “*Die*

Türken (“The Turks”), which served as a bridge to the famous dialogue between the Sultan Saladin (performed by Klaus-Dieter Haege) and the Jew Nathan the Wise (Roland Pagel), from the drama. The dialogue has also become known as “The Parable of the Rings.”

The story is as follows:

Nathan speaks of a ring, as a metaphor for religion, which “makes one beloved of God and man.” For generations, the ring was passed down by the father to his best-loved son. One father, who loved all three of his sons equally, pays to have two exact copies of the ring made, and after his death, his sons fight over which ring is the original. The judge who is summoned by the sons, concludes that none of the three rings is the true one, because the true ring makes one beloved of all, but each son only loves himself the most. He demands that, “therefore, each person strive for his unbribed and unprejudiced love. Each one of you strive, as much as possible, to show the power of his own ring. May this power prove itself through gentleness, with heartfelt good-naturedness and goodwill, and through his belief in God.” The power of each stone will show itself, through many generations, through the children’s children, and a much more knowledgeable man will then tell us which is the “true ring.” With this ending, the question of the true religion is posed.

It becomes clear, how Lessing continued to develop Nicolaus’s idea of “unity in diversity,” in which he brought together the idea of the one religion, through the one ring, and the different practices of religion, through the three rings. Since the true ring cannot be found out, it is shown that all different practices of religion are bound together by a common principle, which is that which the Apostle



Gotthold Ephraim Lessing

Paul identifies, in *De pace fidei*, as “the love of Truth.”

Schiller’s *Don Carlos*

Following the dialogue, three songs were performed by Jessica Tremblay and Birgit Brenner. These were all poems of Lessing, made into songs by different composers. The evening was rounded off with works of Schiller. Andreas Richter recited a section of the famous dialogue from Schiller’s *Don Carlos*, on freedom, between the Marquis of Posa and King Philip II of Spain, who presumes, with the help



Friedrich Schiller

of the Inquisition, to become the ruler of Christendom. There, Posa says,

... Look about yourself
Upon his glor’ous universe. On
freedom
It hath been founded—and how rich
it is
Through freedom! He, the great
Creator, casts
The worm into a drop of dew, and
lets,
In e’en the deathly spaces of decay,
Free will enjoy itself—See *your*
creation,
How tight and poor! The rustling of
a leaf
Affrights the Lord of
Christendom—you have
To quake before each virtue. *He*—
lest freedom’s
Delightful presence be disturb’d—
He rather
Allows the awful multitude of evil
To rage throughout His universe—
of Him,
The Artist, one is not aware,
discreetly
He veils Himself within th’eternal
laws;
Free thinkers see *these*, yet not *Him*.
Wherefore
A God? they say; the world is self-
sufficient.
No single Christian prayer hath ever
prais’d
Him more than this free thinker’s
blasphemy.

The final event of the evening was Schiller’s poem, “*Die Worte des Glaubens*” (“Words of Faith”) which develops Nicolaus of Cusa’s ideas of freedom, belief, and reason. With Schiller’s appeal that each person should make “these three words”—freedom, virtue, and God—his or her own, the listeners were addressed directly, to think about the meaning of the poem, and thereby, the true meaning of being human.

—Frauke Richter



A SYMPOSIUM ON THE 600TH ANNIVERSARY OF THE BIRTH OF CARDINAL NICOLAUS OF CUSA

TRANSLATION

On Searching For God

(1445)

Nicolaus of Cusa

IN COMMENTING on Vladimir Ivanovich Vernadsky's groundbreaking 1938 article, "Problems of Biogeochemistry II: On the Fundamental Material-Energetic Distinction Between Living and Nonliving Natural Bodies of the Biosphere,"* Lyndon LaRouche emphasized that one cannot locate the cause of living processes within the domain of the non-living, nor the cause of cognition within living processes, but that each and all derive from the principle of universal creation.

Nicolaus of Cusa develops the same argument respecting the transfinite ordering of human mentation in "On Searching for God." In this work, Cusanus makes the point that vision sees colored sensible objects, but vision itself is colorless. If it were colored, vision would be deceived. Moreover, one cannot attain to vision from within the domain of the colored. Thus, the distinctions among colors are necessarily derived from a higher domain, i.e., vision. Cusanus then argues that this is true with respect to all sense perception.

Next, he argues that, although logical rationality is apprehended through the intellect (cognition), the intellect is not to be found in the domain of the rational; the intellect is as the eye, and the rational as the colors. The intellect is, as it were, a free vision, namely a true and simple judge of all rationality, in which there is no mixture with the species of the rational. Nowhere in the entire region of rationality does one attain the intellect.

Ascending further, Cusanus argues that if rationality is the king of the sensible world, and the intellect the king of rationality, then God is the King of the intellectual world, and in fact, the King of kings, i.e., the King or cause of each and all.

Moreover, since the mind of man is created in the image of the Creator, Who created the universe as a whole, then, as Cusanus argues in a number of places, one can know the lawful order of the universe as a whole, only to the extent that one becomes self-conscious, i.e., knows one's own mind from the standpoint of the intellect. This corresponds to Vernadsky's notion of the noosphere (noetic activity) in relationship to the biosphere and to the non-living domain.

Thus, there is a definite psycho-physical parallelism between the transfinite ordering of the non-living, the living, human cognition, and the principle of universal creation and that of the human mind, as was originally developed by Plato in the celebrated metaphor of the Divided Line in Book VI of his Republic.

* 21st Century Science & Technology, Winter 2000-2001 (Vol. 13, No. 4), pp. 20-40.

"On Searching for God" is reprinted from *Towards a New Council of Florence: 'On the Peace of Faith' and Other Works by Nicolaus of Cusa*, ed. by William F. Wertz, Jr. (Washington, D.C.: Schiller Institute, 1995), 2nd ed.

I WANT to satisfy your desire as well as I can, venerable Brother in Christ, and attempt to repeat briefly and clearly in writing, what I endeavored to explain at the Epiphany festival to the people concerning the rational ground of the name of God. May we both be stimulated thereby in our meditation and may the inner man be transformed in the intellectual ascent of the light gradually into light, until he comes through the light of glory into clear knowledge and enters into the joy of his Lord.



*Donor portrait
of Cardinal
Nicolaus of Cusa,
altarpiece detail,
St. Nicolaus
Hospital, c. 1460.*

Courtesy of Dr. Helmut Gestrich

I.

First, dear Brother: You know well that Paul, who reports of himself, he had been transported into the third heaven all the way to the view of secrets, proclaimed the truth on the Areopagus to the men, who then dedicated themselves in Athens to the most highly praised study of philosophy. As introduction to his theme, he stated he wanted to bring them the Good News of that unknown God, to whom the Gentiles had consecrated an altar there. And as he commenced to explicate this, he began with how God had created all in one man; He has indulged them a definite time to be in this world to search for God, if they are able by chance to attain and find Him. He added thereto that He is not very distant from anyone, since in Him we indeed are, live, and are moved. Thereupon the Apostle repudiated idolatry and said thereto, that nothing can be in the cogitation of man, which were similar to the divine.

As often as I read the Acts of the Apostles, I admire this train of thought. Paul indeed wanted to reveal the unknown God to the philosophers and then affirms of Him, that no human intellect can conceive Him. Therefore, God is revealed therein, that one knows that every intellect is too small to make itself a figuration or concept of Him. However, he names him God, or in Greek, *theos*.

If, therefore, man has come into the world to search for God and, if he has found Him, to adhere to Him and to find repose in adhering to Him—man cannot search for Him and attain Him in this sensible and corporeal world, since God is spirit rather than body, and cannot be attained in intellectual abstraction, since one is able to conceive nothing similar to God, as he asserts—how can one, therefore, search for Him in order to find Him? One thing is certain: If this world were not helpful to the seeker, man were sent into this world to search for Him in vain. Therefore, this world must assist the seeker and

he must also know, that neither in the world nor in everything which man conceives is something similar to God.

We now want to see if the name *theos* or *deus* offers us assistance thereto. Indeed, the name *theos* is not the name of God, who excels every conception. Indeed, what can not be conceived, remains ineffable. To make effable is indeed to express an intrinsic concept through vocal and other figurative signs externally. Therefore, if one conceives no similitude of a thing, then its name is unknown. Therefore, *theos* is the name of God only insofar as He is sought by man in this world. Therefore, the seeker of God may consider attentively, how in this name *theos* a path is enfolded on which God is found, so that one can attain Him. *Theos* comes from *theo*, which means “I see” and “I run.” Therefore, the seeker must run by means of vision, in order to be able to advance to the all-seeing *theos*. Therefore, vision bears in itself a similitude of the path on which the seeker should proceed. We must therefore extend the nature of sensible vision before the eye of intellectual vision and form from it a ladder for the ascent.

Our vision is generated from a lucid and clear spirit descending from the brain above into the organ of the eye and, as soon as the extrinsic light concurs, a colored object multiplying the similitude of its species in it. Therefore, in the region of the visible nothing is found except color. However, vision is not from the region of the visible, but is constituted beyond everything visible; since it does not belong to the region of colors, vision has no color, and, in order to be able to see all colors, it is not contracted to something, and so that its judgment is free and true, it has no more of one color than of another, and so that its power is in relation to all colors, it is restricted through no color. Vision is not mixed with colors, so that its vision is true.

Through an experiment we demonstrate that vision is

deceived through a colored medium, through glass or a transparent stone or something other. Vision is so pure and free from every blemish of the visible, that in comparison with it everything visible is darkness and corporeal density in comparison to the spirit of vision.

However, if we intuit the world of the visible with the intellect and ask if knowledge of vision is found in it, then it becomes apparent that all this world of color does not know vision, because it attains nothing not-colored. And if we then said, there is vision and yet it is nothing colored, then this world of the visible will want to make of it a figure of similitude, yet in all its concepts will find nothing similar to vision, since its concept is impossible without color. And if inside the ambit of its region it finds neither vision nor something similar or configurable to it, it cannot attain vision; indeed it is not even able to attain that vision is something at all. For outside of color it attains nothing, but rather judges that everything not-colored is not something.

Therefore, of all the names which can be named in this region, no name befits vision; neither the name of whiteness nor of blackness, nor that of all mixed colors; for it is neither whiteness and not-whiteness copulatively nor blackness and not-blackness copulatively. Therefore, whether the region of the sensible denotes all names singularly and disjunctively, or whether it considers the names of contrary colors copulatively or the copulation of all nameable names, it attains nothing of the name and essence of vision.

If someone now stated that color is not distinguished and perceived from itself, but rather from a higher cause, i.e., vision, and if he then asked all visible things if this is true and how they conceive this cause, then they will respond: that presupposed, which has given them names, is—just as is vision—the best and most beautiful according to what can be conceived. However, if they prepare themselves to form a concept of this best and most beautiful, then they return to color, without which a concept cannot be formed. For this reason they say it is more beautiful than every white color, for in the region of color the white color is not so beautiful that it could not be still more beautiful, and not so lucid and resplendent, that it could not be still more lucid. Therefore, all visible things would not claim as their king some color of their region, which is actually among the visible things of this region, but rather would say, he is the highest possible beauty of the most lucid and perfect color.

Such and many similar things, dear Brother, you see as most true. Therefore, ascend now from vision to hearing in a similar manner, and to taste, smell, and touch, thereupon to the universal sense, which stands above every other sense, as hearing above the audible, taste above the

tasteable, smell above the smellable, and touch above the tangible.

From there proceed higher to the intellect, which is above everything intelligible, which is above everything rational. Indeed, the rational is apprehended through the intellect, however, the intellect is not found in the region of the rational; the intellect is as the eye and the rational as the colors. If you would, extend your consideration; thus you will apprehend how the intellect is as it were a free vision, namely, a true and simple judge of all rationality, in which there is no mixture with the species of the rational. Therefore, its judgment of rationality is clear and intuitive in the variety of the region of rationality. In respect to knowledge of rationality, the intellect judges this necessary, that possible, this contingent, that impossible, this demonstrative, that sophistical and apparent, this commonplace, etc., just as vision judges this color as white, that as not-white but rather black, this as more white than black, etc.

Nowhere in the entire region of rationality does one attain the intellect. However, if this world or the universe wanted to portray its king, commander, and judge, then it would say he is the terminus or ultimate perfection of rationality. But the intellectual natures can likewise not deny that a king is placed over them. And just as the visible natures assert of this king placed over them that he is the ultimate perfection of everything visible, so the intellectual natures, which view the true intuitively, also affirm their king is the ultimate perfection of the intuition of all things. They name him *theos* or God, the speculation, as it were, or the intuition in the complement of its all-seeing perfection.

Nevertheless, nothing is found in the entire region of intellectual powers, to which the King is similar, nor is there a concept which is similar to Him in the entire intellectual region. Rather, He is above everything which is conceived or understood; His name, although it names and discerns everything intelligible, is not intelligible. And His nature is infinitely anterior to all intellectual wisdom in altitude, simplicity, strength, power, beauty, and goodness; everything which dwells in the intellectual nature is in comparison with Him shadow and impotence, grossness and meager wisdom; and one could extend such comparisons infinitely.

You are therefore able to run on this path, on which God is found above all vision, hearing, taste, touch, smell, speech, sense, rationality, and intellect. It is found as none of these, but rather above everything as God of gods and King of all kings. Indeed, the King of the world of the intellect is the King of kings and Lord of lords in the universe. For He is the king of the intellectual nature, which has dominion in the rational nature; the rational in turn

rules in the sensible and the sensible rules in the world of sensible things, over which vision, hearing, taste, feeling, smell preside as kings. All these kings discern, speculate, and theorize up to the King of kings and the Lord of lords, who is the speculation, and God or *theos* Himself, in whose power all kings stand and from whom all kings have that which they have: power to rule, beauty, entity, loveliness, joy, life, and everything good.

From this it follows that in the realm of the greatest and highest king all attractiveness of visible forms, the variety of colors, pleasing proportions, the resplendence of carbuncles, the greenness of meadows, the brightness of gold and whatever delights the sight, in which the sight reposes and takes delight as if in the thesaurus of its realm, have no value in the curia of the great King, because they belong to the lowest litter of the curia. Likewise the concordant resonance of all voices and that sweet harmony in the realm of hearing, the indescribable variety of all instruments, the melody of those golden organs, the songs of nightingales, and sirens and all the other exquisite riches of the king from the realm of hearing are as though dregs, which adhere to the pavement in the curia of the greatest and best King of kings. Likewise every sweet and sour, bitter and pleasant taste of paradise apples, of the most delicious fruits, of the grapes of Engaddi, of the wine of Cyprus, of the honey of Attica, the grain and oil and everything which India and the woods and water of this whole world present as refreshment and offer for pleasant taste, are of little moment in the palace of that most powerful ruler of the world. The pleasant smell of perfume, frankincense and myrrh, musk and everything emitting an odor, which dwells in the realm of olfaction—all this is not regarded as something precious in the great palace of the highest King, and still less all that which through its softness delights the sense of touch. If indeed the sense of touch of the king seems extensive and its realm extended throughout the world, it is, however, hardly a point, nearly imperceptible, in respect to the realm of the ruler of the universe.

That king appears great, who commands these kings already named, and whose vassals they are; he is the universal sense, which enfolds in his power all the power of those already named. And yet he is a purchased slave and the lowest servant in the realm of the all-seeing and all-containing King.

In incomparable altitude above all the already named, the intellectual nature has obtained its realm. All the previously named and described realms are dependent on its power; it presides over them dominantly.

However, the kings of the intellectual nature are of the family of the highest commander and they enjoy being ascribed to his military. Their wish is nothing other than

to be able to obtain any available position in the court of the ruler, in which they can be refreshed in intellectual intuition by Him, who is called *theos*. And everything which is in the previously named universal realm, does not concern them, for it is nothing in comparison to the good, which they know in their ruler; in Him everything is in complement, in itself divine and exceedingly good; all that which is found in the other kings is not only imperfect, outside themselves and in shadow or image, but rather also contracted at an incomparable and disproportionate distance.

Therefore, the color, which is perceived in the realm of the visible by vision, does not see, but rather is only visible. It lacks life, vital motion, and perfection, such as the stem of a plant or subsistent forms have. But the senses, which are in the realm of the universal sense, the particular senses, have a nature which in the vitality and cognition of the sensible spirit enfolds in itself the form of the sensible world. Therefore, there is not less in the realm of the senses than in the realm of the sensible.

However, everything which is unfolded in the realm of the sensible is enfolds and vital in the realm of the senses in a more vigorous and perfect mode. For the realm of the sensible reposes in them. Likewise that which belongs to the realm of the senses is in a much clearer and more perfect mode in that realm, in which it is intellectually. Indeed, in the intellectual being of the intellectual realm, color has an incorruptible nature and differs through its perfection from the color of the sensible world, just as the perpetual from the corruptible, and the intellectual life from death, and light from shadow.

But in the realm of the Almighty, where the realm is king, where everything that is in all realms is the King Himself; where color is not sensible or intellectual but rather divine color, indeed God Himself; where everything, which in the sensible world is without motion and life, and everything which has vegetative, sensible, rational, or intellectual life is the divine life, which is the immortality, in which God alone dwells and where in Him everything is He Himself; there is the delight of all joys, which we drink up through the eyes, ears, taste, touch, smell, sense, life, motion, rationality, and intelligence, the divine, infinite, and inexpressible delight and the repose of all delight and delectation; for God is the *theos*, speculation and running, which sees everything, is everything, runs through everything. Everything looks to Him as to its King; at His command everything is moved and runs, and every running to the end of repose is a running to Him. Therefore, everything is *theos*, the beginning, from which everything flows out, the middle, in which we are moved, and the end, to which everything flows back.

Therefore, on this path, my Brother, endeavor to search for God in the most diligent speculation. If He is sought in the right manner, it is impossible not to find Him, who is everywhere. And He is then sought correctly and according to His name, if He is sought to the end that His laud, according to His name, fulfills our earthly nature up to the limit of its power.

II.

But now, turning to the second part of our inquiry, we want to see in what manner we are led in a stepwise ascent to the indicated theory—indeed we are not moved to the completely unknown, and in order to inquire into this, we want to look back again at vision.

First we state: A double light concurs, so that vision detects the visible discretely. For it is not the spirit of vision which imposes the name of colors, but rather the spirit of its father, who is in it. The spirit, which descends through the optical nerves from the brain into the eye, is struck by the obviation of the species opposite it and a confused sensation arises. The vital power is astonished by this sensation and endeavors to discern it. Therefore, the spirit which is in the eye does not discern it, but rather a higher spirit in it effects this distinction. We could demonstrate this to ourselves as true through an everyday experiment. Frequently we do not detect the transient—although its species is multiplied in the eye—since we do not perceive it when we do not attend to the others, and if several men speak, we understand only him, to whom we have turned our attention.

This demonstrates to us that the spirit which is in the sense attains the operation of its activity through a higher light, namely, that of rationality. If, therefore, the eye says this is red and this is blue, then the eye does not speak but rather the spirit of its father speaks in it; namely this vital spirit, whose eye this is.

But although the attention of him who wants to see is present, the color is still not on that account visible; for that it is necessary that the visible be made visible by the other light of an illuminant. Indeed, in shadow and darkness the visible does not have the aptitude to be seen. Its adaptation occurs through the light which illuminates it. Thus the visible is only apt to be seen in the light, because it is not able to enter the eye by itself, and for this reason it is necessary that it be illuminated; for it is the nature of the light to enter into the eye by itself. Then, therefore, if the visible is in the light, which has the power to enter into the eye by itself, it can enter the eye. However, color is not in the light as in another, but rather as in its origin, for color is nothing other than the terminus of the light in the diaphanous, as we experience it in the rainbow.

Indeed, according as the ray of sun is terminated in a rain cloud in different ways, a different color is generated.

Color, manifested in its origin, namely, in the light, is therefore visible, because the extrinsic light and the spirit of sight communicate in clarity. The light, which illuminates the visible, penetrates a similar light and brings the opposing species of color to sight.

On this basis, Brother, prepare yourself a course, on which to inquire how the unknown God presides over all that through which we are moved to Him. For although it is already certain for you, that a vital spirit discerns in the spirit of the eye, and the light makes the visible apt to be seen, nevertheless vision detects neither the spirit itself nor the light. Indeed, the light does not belong to the region of colors, since it is not colored. Consequently, it is not to be found in the entire region where the eye holds sway. Therefore, the light is unknown to the eye and nevertheless is delectable to vision.

Therefore, as rationality, which discerns the visible in the eye, is a distinguishing spirit, so it is an intellectual spirit, which in rationality understands, and it is a divine spirit, which illuminates the intellect. However, the distinguishing light of the soul in the eye, ear, tongue, nose, and in the nerve, which governs the sense of touch, is one light received in various organs variedly, in order, according to the variety of organs, to discern variedly the things which are of the sensible world. And the light itself is beginning, middle, and end of the senses. For the senses are only for the purpose of distinguishing the sensible and they are only from that spirit and are moved in no other. In it also all the senses live. Indeed, the life of vision is to see, the life of hearing to hear, and the more perfect this life is, the more discrete it is. Indeed, the vision which discerns the visible more perfectly is more perfect, and the same is the case for the hearing.

Therefore, life and perfection, joy and repose and whatever all the senses desire, lie in the distinguishing spirit, and from it they have everything that they have. Even if the organs lose in power and the life in them decreases in activity, it does not decrease in the distinguishing spirit, from which they receive the same life, when the fault or infirmity is removed.

In like manner, conceive the same about the intellect, which is the light of distinguishing rationality, and from it elevate yourself to God, who is the light of the intellect. And if you run thus through that which you have discovered in vision, you will discover how our God, blessed be He in eternity, is everything which is in everything which is, just as the distinguishing light in the senses and the intellectual in the rational, and that it is He Himself, from whom the creature has that which it is, from whom it has life and motion, and that all our cognition is in His

light, so that it is not we who know but rather He in us. And if we ascend to cognition of Him Himself, then although He is unknown to us, nevertheless we are moved in nothing other than in His light, which enters into our spirit, so that we advance to Him in His light. Therefore, as being is dependent on Him, so also is being known. Just as the being of color depends on corporeal light, so the cognition of color depends on this light, as we have already said above.

Therefore, we must attend to the fact that wonderful God created the light among His works. In its simplicity it excels all the other corporeal things, so that it is the middle between spiritual and corporeal nature, through which this corporeal world ascends, as it were, through its simplicity into the spiritual world. Indeed, it brings the forms into vision, so that the form of the sensible world ascends to rationality and the intellect, and through the intellect attains its end in God. Thus the world itself also enters into being, so that this corporeal world is what it is through participation in light; and one regards the corporeal things in the corporeal genus as more perfect, the more they participate in light, as we experience it stepwise with the elements. Also a creature that has the spirit of life is the more perfect, the more it participates in the light of life. Thus a creature of intellectual life is the more perfect, the greater its participation is in the intellectual light of life.

However, God cannot be participated in and He is the infinite light, which shines in everything, just as the distinguishing light in the senses. However, the varied termination of this light, in which nothing can participate and which cannot be mixed, shows varied creatures, just as the termination of corporeal light shows various colors in the diaphanous, although the light itself remains unmixable.

III.

I do not doubt, Brother, that you are able to advance from these explanations in clarity and to apprehend that as color is only visible through the medium of light, that is to say, as color can ascend only in the light of its origin to repose and to its end, so our intellectual nature can only attain the felicity of repose in the light of its intellectual origin. And vision does not discern, but rather the distinguishing spirit in it discerns; thus also in our intellect, which is illuminated by the divine light of its origin according to its aptitude to let it enter, we shall not know or live through ourselves in intellectual life, but rather God will live in us in infinite life. And this is that eternal felicity, where the eternal intellectual life, that excels every concept of living creatures in inexpressible joy, lives

in us in strictest unity, just as the distinguishing rationality lives in our most perfect senses and the intellect lives in the clearest rationality.

It is already apparent to us, that through the motion of the light of His grace, we are drawn to the unknown God, who cannot be detected otherwise than if He manifests Himself. And He wants to be sought. And He wants to give light to the seekers, without which they cannot seek Him. He wants to be sought, and He also wants to be apprehended, for He wants to reveal and manifest Himself to the seekers. Therefore, He is sought with the desire to be apprehended and He is sought theoretically, with the running leading the runner to the repose of motion, when He is sought with maximum desire. Hence, one proceeds correctly towards attaining wisdom, only if He is sought with maximum desire. And when He is sought thus, He is sought on the correct path, where without doubt He will be found through the manifestation of Himself. No other path is given us than this one and in all the teachings of the saints, who attained wisdom, no other is bequeathed to us.

Therefore, they all erred, the proud, the presumptuous, who regarded themselves as wise, who trusted in their own genius, who in ascending arrogance deemed themselves to be similar to the highest, who arrogated to themselves the knowledge of the gods; they closed off to themselves the path to wisdom, because they believed it to be no other than that which they measured with their own intellect; they passed away in their vanities, they embraced the tree of knowledge and did not apprehend the tree of life. Therefore, to the philosophers who did not honor God, there was no other end, than to perish in their vanity.

Those, however, who saw that one cannot attain wisdom and perennial intellectual life, unless it be given through the gift of grace, and that the goodness of the Almighty God is so great that He hears those who invoke His name, and they gain salvation, became humble, acknowledging that they are ignorant, and directed their life as the life of one desiring eternal wisdom. And that is the life of the virtuous, who proceed in the desire for the other life, which is commended by the saints.

There is no other tradition of the holy prophets and those who obtained the grace of divine light in this life, than that everyone who wishes to attain the intellectual life and immortal divine wisdom, first must believe that God exists and that He is the Giver of all goods; that one must live in fear of Him and advance in His love; that one must in all humility implore Him for immortal life and, so as to be worthy of attaining it, must embrace everything which is ordered to this immortal life in deepest devoutness and the most sincere worship.

Now you see, Brother, that not some virtue nor cult nor law nor instruction justifies us, so that we deserve to obtain this most excellent gift. But a virtuous life, observation of the commandments, sensible devotion, mortification of the flesh, contempt for the world, and all the rest of this kind accompany everyone who seeks correctly divine life and eternal wisdom. If they are not with him, then it is manifest that he is not on the path, but rather outside of it.

However, the indications that someone is not off the path but rather is on the path, we can obtain from the works which accompany those proceeding correctly. Whoever endeavors with the greatest desire to apprehend eternal wisdom places nothing before it in his love; takes care not to offend it; affirms that, in comparison to it, everything else is nothing; also regards everything else as nothing and spurns it. To please the loved wisdom he adapts his whole effort to it, knowing that he cannot please it if he clings to the other, corruptible prudence of the world or sensible delectation. Therefore, abandoning everything, he hastens freely in the fervor of his love. As the deer desires the font of water, so does such a soul desire God. Thus, we merit the incomparable thesaurus of glory not through works which we accomplish, but rather God loves who love Him; for He is charity and love and gives Himself to souls, so that they enjoy this best good in eternity.

Now you see, Brother, to what purpose you have come into this world, as we have already mentioned in the introduction, namely, in order to search for God. You see that *theos* means for the seekers, how one can seek Him on a certain path. If you walk on this, then it will be your path and it will be well known to you; you will delight in it on account of its loveliness and the fecundity of its fruits, which are found all around it. Therefore, exercise yourself by multiplying your action and theoretical ascension and you will find the pastures, which augment and strengthen you on your path, and which inflame you more from day to day in desire.

For our intellectual spirit has the power of fire in itself. For no other purpose is it sent by God to the earth than that it glow and grow into a flame. When it is excited by admiration, then it grows, just as if the wind entering into a fire excited its potential to actuality. If we apprehend the works of God, we marvel at eternal wisdom. And through the extrinsic wind, which proceeds from works and creatures of such varied powers and operations, we are incited so that our desire grows into love of the Creator and attains to the intuition of His wisdom, which has ordered everything wonderfully.

If we turn our view to the minimum grain of mustard seed and intuit its strength and power with the eye of the

intellect, then we find a vestige, which excites us in admiration of our God. For although its body is so small, nevertheless its power is without limit. In this granule is a large tree with leaves and little branches and many other seeds, in which similarly is the same power beyond all number. Thus I see in the intellect the power of the grain of the mustard seed; if it should be unfolded as actuality, this sensible world would not suffice thereto; not even ten or a thousand, indeed not even so many worlds as one could enumerate.

Who is not seized by admiration, when he reconsiders this, especially when one adds that the intellect of man embraces all the power of the grain of seed and apprehends this as true, and thus excels in its capacity of apprehension all that of the whole sensible world, and not only of this one, but rather of infinitely many worlds? And so our intellectual power embraces every corporeal and measurable nature.

What magnitude therefore is in our intellect! If, therefore, the merely punctual magnitude of the intellectual spirit embraces every possible sensible and corporeal magnitude with infinitely greater capacity of apprehension, how great then is the Lord! And how laudable is He, whose magnitude is infinitely more excellent than the magnitude of the intellect! And just because He is so great, everything is in comparison to Him nothing and can be in Him nothing other than God Himself. Blessed be He in eternity! You could likewise ascend through a similar ascent from the power of a millet seed, just as from the power of every vegetative and animal seed, and no seed has less power than the grain of mustard seed. And there are infinitely many such seeds. Oh how great is our God! He is the actuality of every potentiality, for He is the end of every potentiality; not only the potentiality which is contracted to a grain of mustard seed or millet seed or a grain of corn or to the seed of our father Adam or to others, and thus to infinity!

But because, in all these, immeasurable strength and power is contracted according to their genus, absolute potentiality, which is also infinite actuality, is in God without contraction. What man would not be astounded by the power of God, if he seeks thus? Who would not be inflamed to the highest ardor and fear and love for the Almighty? Who can observe the power of the minimum scintilla of fire without being filled with admiration for God beyond everything that can be said? If the power of a scintilla, insomuch as it is in actuality—for in order to be actual, the scintilla is obtained from potentiality by means of the motion and striking of iron against the flint—is so great, that it is in its power to resolve everything into its nature and to place all fire in potentiality into actuality, wheresoever it is in this world,

although there were infinitely many worlds, oh, how great is the power of our God, who is a fire that consumes fire! And if you turn yourself, Brother, to the nature and conditions of fire (there are twenty-four, as the highest contemplator of divine things, Dionysius, explains in the hierarchy of the angels), then you have a wonderful path for seeking and finding God. Look there and you will be astonished.

IV.

But if you search for another path to the wisdom of our Master, then take heed. For with the eye of the intellect you apprehend that in a small piece of wood, in this most minute stone, in a piece of ore or gold, in a grain of mustard seed or millet all the artificial corporeal forms are in potentiality. Indeed you doubt not that in each of them the circle, triangle, tetragon, sphere, cube, and whatsoever else geometry names is included; thereby also the forms of all animals, all fruits, all flowers, leaves, trees, and the similitude of all forms, which are in this world and could be in infinite worlds.

Therefore, if that one is already a great artist, who knows how to educe from a small piece of wood the face of a king or of a queen, an ant or a camel, how great then is the mastery which can form as actuality everything which is in all potentiality? Therefore, God, who is able to produce from the most minute piece of matter the similitude of all forms which can be in this world and in infinitely many worlds, is of admirable subtlety.

Still more wonderful, however, is the power and knowledge of Him who has created the grain of millet itself and has placed this strength in it. And truly stupendous is the mastery of that wisdom, which knows how to excite all possible forms in the grain of seed, not in accidental similitude, but rather in essential truth. Beyond all intellect, however, is the indescribable stupor over the fact that it not only knows how to excite living men from the stones, but rather also men from nothing, and to call into being that which is, as well as that which is not. And since it is certain that all created arts only attain something in something, i.e., some similitude, which is not without defect, namely, in something created—for example a statue in the material of iron, which is somehow similar to a man—who then is this master, who produces not a similitude with a defect, but rather the true essence without some material from which it is brought into being?

On such paths we advance to God in vehement admiration, and then the spirit glows with desire to find Him completely securely, and it is consumed in loving longing, that ultimate salvation be shown it.

V.

Finally, there is still a way to search for God, in yourself, which is the ablation of terminations. For when an artist seeks the face of the king in a piece of wood, then he discards all other terminations besides the face itself. Through the concept of his faith he sees in the wood the face, which he seeks to make visibly present to the eye. For the face, which through faith exists in the present for the mind in the intellectual concept, is in the future for the eye.

If, therefore, you conceive that God is better than can be conceived, then you discard everything that is terminated or contracted. You discard the body, in that you say that God is not body, therefore, is not terminated through quantity, location, form, or situation. You discard the senses, which are also terminated: You do not see through a mountain, nor into the hidden depths of the earth, nor in the clarity of the sun; for hearing and the other senses it is the same. Indeed, they all are terminated in potentiality and power. Therefore, they are not God. You discard the universal sense, fantasy and imagination, for they do not exceed corporeal nature. Indeed, the imagination does not attain the incorporeal. You discard rationality, for it frequently fails and does not attain everything. If you wish to know why this is a man, why that is a stone, you do not attain the rational ground in all the works of God. The power of rationality is slight; therefore, God is not rationality. You discard also the intellect, for the intellect itself, although it embraces everything, is terminated in its power. It is not able to attain perfectly the quiddity of a thing in its purity, and in everything which it attains, it sees that it were attainable in a more perfect mode. God is therefore also not intellect.

But if you search further, you find in yourself nothing similar to God, but rather you affirm that God stands above all this as cause, origin, and the light of life of your intellectual soul.

You will be happy to have found Him above everything which belongs to your interior, as a font of goodness, from which everything flows out to you which you have. You turn yourself to Him, from day to day you enter into Him more deeply, you abandon everything which is turned towards the outside, so that you are found on that path on which God is found, so that you are able to apprehend Him after this life in truth. This He would grant you and me; He, who gives Himself abundantly to those who love Him. Blessed be He in eternity. Amen.

—*translated by William F. Wertz, Jr.*

Join W. Europe, Eurasia To Rebuild the World LaRouche Webcast Defines U.S. National Mission

Speaking to diplomats and supporters gathered in New York City and Washington, D.C. via an international webcast on March 21, U.S. statesman and Democratic Presidential pre-candidate Lyndon H. LaRouche, Jr., provided his assessment of the first 60 days of the Bush Administration.

Bush's actions so far have been a disaster, LaRouche argued. His Presidency represents the legacy of the racist, anti-progress Southern Strategy, with at least three different political layers involved—the pro-Armageddon fundamentalists, the Iran-Contra killers, and the “professionals” like Rumsfeld, Cheney, and O'Neill. As a combination, they are irrationally pursuing public policies that will fail, such as energy deregulation, hospital shutdowns, and attempts to save the bankrupt financial system.

This disaster already has the Europeans very upset, LaRouche said, although no nation there will directly challenge the United States. The only hope the Europeans see is the possibility that Russian President Putin will embrace a policy of cooperation with Europe and the Asian nations, for long-term economic growth and development. If the United States were to join that partnership, it would provide the opportunity required. LaRouche was optimistic that pressure coming from inside the U.S., and from Europe, could force the institutions of the U.S. to “bring sense to the United States.”

To accomplish this, LaRouche said, “What we must have is a sense of *national mission*; the idea of the United States cooperating with Western Europe, with



Lyndon H. LaRouche, Jr., addresses international webcast, March 21, 2001.

Eurasia as a whole, to restart the world economy; the idea of taking that on, as a 25-year, long-term-credit mission; rebuilding a new financial system, like the old Bretton Woods system, to handle

the kind of problem we faced in the immediate post-World War II period—the same general kind of lessons. And then, getting a science-driver policy, to

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Campaign Pamphlet Issued: 'Battle for the Common Good'

Lyndon LaRouche's 2004 Presidential campaign committee released a new mass pamphlet in late May, “Join LaRouche's Battle for the Common Good.” The 24-page item features the three principal aspects of Democrat LaRouche's unified conception of the drive to restore the U.S. Constitution's principle of the General Welfare to both U.S. domestic and foreign policy practice today.

- The first of the pamphlet's three sections presents LaRouche's proposals

for a New Bretton Woods reorganization of the financial system, and the fostering of Eurasian Land-Bridge development corridors, as the crucial elements needed to restart the world economy.

- The second section discusses the need for energy re-regulation, Chapter 11 bankruptcy procedures, and LaRouche's short-, medium-, and long-range programs for dealing with the crisis.

- Finally, as epitomized by the fight to save D.C. General Hospital, the pamphlet discusses how to defeat the Nazi “useless eater” approach to health care which has become dominant both in the U.S. and globally.

International Conference, Germany ‘Win the Ecumenical Battle for Mankind’s Common Good!’

Leading representatives from Europe, Asia, Africa, and the Americas, came together under the auspices of the Schiller Institute in Germany over the May 4-6 weekend, to discuss a remedy for the presently ongoing, Bush Administration-led plunge of the entire planet into a global new Dark Age.

The conference occurred in the context of the simultaneous ecumenical mission being undertaken by Pope John

Paul II, tracing the footsteps of the Apostle Paul in explicit pursuit of the common good and against globalization.

In his keynote presentation, Lyndon LaRouche emphasized his proposal for Eurasian cooperation and development, stressing that such a Eurasian economic renaissance will give Eurasia the means to support justice for Africa.

Dominating the three days of the conference, beginning with LaRouche’s keynote speech, was the figure of the great Russia-Ukraine scientist Vladimir Vernadsky. As LaRouche stated, the possibility of successful development of cooperation among the

nations of continental Eurasia, including Japan, depends upon a commitment to the greatest work of infrastructural development in all human history, a work he described as the “Conquest of Inner Space.” This would require “crash programs” in the development of the combined science of physical economy and biogeochemistry, for which the work of Vernadsky is critical.

Extraordinary Russian Response

Following LaRouche’s keynote, presented on the evening of May 4, contributions by Dr. Sergei Glazyev, chairman of the Committee on Economic Policy



Schiller Institute founder Helga Zepp LaRouche delivers second keynote address, on the life of Cardinal Nicolaus of Cusa.

EIRNS/Dean Andromidas



EIRNS/Dean Andromidas



EIRNS/Maria Schmitz

Russian economists Dr. Sergei Glazyev (left) and Prof. Stansislav Menshikov (right).

LaRouche Analysis Presented at Russian Conferences

On May 15, LaRouche representative Dr. Jonathan Tennenbaum addressed an exclusive seminar on the global financial crisis, held in the Diplomatic Chamber of the Kremlin Palace in Moscow, and attended by approximately 150 representatives of the Russian government, business and financial circles, and press. The privately organized seminar also heard presentations by experts from a number of leading Russian think-tanks, on financial and economic developments in the United States and globally.

In his 30-minute address, delivered in Russian, Tennenbaum presented essen-

tial concepts from the just-concluded international conference of the Schiller Institute in Bad Schwalbach, Germany. After his speech, numerous participants came up to receive copies of LaRouche’s Bad Schwalbach keynote address.

A Russian translation of Tennenbaum’s address at a previous financial conference in Moscow last March, entitled “Global Financial Crisis: What Is To Be Done?” is circulating on two Russian Internet sites, as well as the Russian version of LaRouche’s article on “Trade Without Currency.” Tennenbaum’s text was also published in the latest issue of the Russian magazine *Millennium*.

On June 5-6, Tennenbaum and Michael Vitt, representing the Schiller Institute and LaRouche’s *Executive Intelligence Review* took part in another Moscow conference, billed as an International Scientific Conference on “Reform of Strategic Sectors of the Economy (the Natural Monopolies and the Defense-Industry Complex) and the National Security of Russia,” co-sponsored by the Institute of International Economic and Political Studies (IIEPS) of the Russian Academy of Sciences, the Russian Association “Economists Allied for Arms Reduction” (ECAAR-Russia), and the National Investment Council.

and Business of the State Duma of the Russian Federation, and Prof. Stanislav Menshikov of the Central Mathematical Economics Institute of the Russian Academy of Sciences, were heard.

Sergei Glazyev called the conference “an important event,” taking place just in time for the international financial and economic crisis, when there was still a margin of time in which to think about shaping the future. “I fully support the ideas of LaRouche and the Schiller Institute,” respecting the development of transport, communications, and other hard infrastructure, as well as “social infrastructure,” worldwide, he stated.

Professor Menshikov stressed reasons for optimism that Russia would go the way of Eurasian development, and added his own view that not just the Russia-India-China triangle, but a five-sided configuration, which adds Japan and Europe, is required.

Development Corridors and Africa

The second day of proceedings began with a panel discussion devoted to the theme “A 25-Year Development Perspective for Eurasia: Russia, China, and India.” Following a review of the

Professor Stanislav Menshikov, co-chairman of ECAAR, presided over the first session, “Russia’s Macro-Economic Situation and Forecast,” which was followed by three more panels on economics, focussing in on the natural gas industry, electric power, and transportation sectors. Corresponding Academician Sergei Rogov, director of the Academy’s Institute for the U.S.A. and Canada, chaired the second day’s proceedings on “Anti-Missile Defense and National Security,” which were followed by a round table on problems of the defense sector.



EIRNS/Dean Andromidas



EIRNS/Dean Andromidas

Africa panel: *Jean Gahururu, Rwanda (left), Prof. Sam Aluko, Nigeria (right).*

shocking process of financial collapse in the West, led by the United States, by *Executive Intelligence Review* economics writer Lothar Komp, the conference heard from Prof. Yuri Gromyko of the Moscow Academy for Culture and Educational Development; Dr. Wen Tiejun of Beijing, Deputy Secretary-General of the China Society for Restructuring Economic Systems; Professor Sujit Dutta, of the Institute for Defense Studies and Analysis, New Delhi; and Professor Selim Mohamad of Egypt.

The afternoon panel featured contributions from African leaders Prof. Abdalla A. Abdalla of Sudan, a former minister of agriculture in that nation; Prof. Sam Aluko of Nigeria; Jean Gahururu of Rwanda; and a Representative of the Committee for the Defense of Democracy in Burundi, Leonce Ndarubagiye.

They were followed by a report on the fight to save D.C. General Hospital in Washington, D.C., given by two leading participants, Nurses’ Union representative Charlene Gordon, and Dr. Alim Muhammad, Minister of Health for the Nation of Islam.

Scientific-Cultural Renaissance

The final day of the conference heard Helga Zepp LaRouche, founder of the Schiller Institute, give a keynote address on the ecumenical lessons of the life of

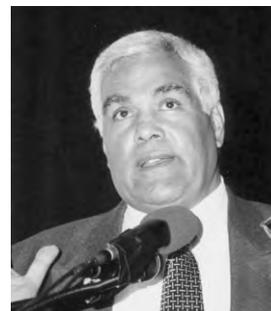
Cardinal Nicolaus of Cusa, which appears in this issue of *Fidelio* [SEE page 14]. Before her speech, a special message to the conference from the Apostolic Nuncio His Excellency Msgr. Karl Josef Rauber, from Budapest, Hungary, was read.

Marivilia Carrasco, leader of the LaRouche movement in Mexico, discussed the “Africanization of Ibero-America,” and the role which Miguel Cervantes’ “Don Quixote” can play in teaching the “art of governing” in the face of the ongoing assault on nation-states.

The conference concluded with a summary of the case for a science of life, as opposed to the reductionist abomination known as “molecular biology,” a discussion which pivoted on the role of Vernadsky’s fundamental contributions. Speaking on this subject were Dr. Jonathan Tennenbaum of the German Fusion Energy Foundation (F.E.F.); Lau-



EIRNS/Maria Schmitz



EIRNS/Maria Schmitz



EIRNS/Maria Schmitz



EIRNS/Maria Schmitz

Eurasia development panel: *(Clockwise from top left) Dr. Wen Tiejun (China), Prof. Selim Muhammad (Egypt), Prof. Sujit Dutta (India), Prof. Yuri Gromyko (Russia).*

rence Hecht of the U.S.-based *21st Century Science & Technology* magazine; and Dino De Paoli and Dr. Wolfgang Lillge, also of the German F.E.F. Ukrainian Professor Volodimir Shevchuk, a representative of the Podolinski Society, also spoke during the discussion.

LaRouche in Poland

‘Nations Must Be Partners, Not Subjects’

Lyndon LaRouche paid a four-day visit to Warsaw, Poland on May 22-25, where he addressed leading political and government circles. His public events included an address in the Sejm, the nation’s Parliament, a seminar with scientists at the Warsaw Polytechnical Institute, and a public meeting sponsored by the Polish branch of the Schiller Institute.

Throughout his visit, LaRouche emphasized that nations must assert their national sovereignty by becoming *partners* in devising solutions to the world’s crises, rather than acting as *subjects* to the emerging globalized world empire.

On May 23, LaRouche was invited by the Peasants Party (PSL) to give a presentation in a room of the Sejm. Thirteen parliamentarians from the party, as well as other groups from the former Solidarity Election Alliance (AWS), attended.

On the morning of May 24, a roundtable discussion was organized with scientists from various disciplines at the



Lyndon LaRouche (left), at seminar at Warsaw Polytechnical University. Professor Jerzy Oledzki, Poland’s former Vice Minister of Education, is at right.

Warsaw Polytechnical University, where LaRouche was invited to speak on “Education and Scientific Renaissance in the 21st Century.” There were 20 scientists, economists, physicists, mathematicians, engineers, a nuclear

physicist, an historian, and a musicologist. The meeting was opened by Prof. Jerzy Oledzki, former Vice Minister of Education under the Hanna Suchocka government of 1992-93.

That afternoon, the Schiller Institute

EIRNS/Chris Lewis

Robinson Tour Brings Real America to Europe

Schiller Institute vice-chairman Amelia Boynton Robinson, a heroine of the American Civil Rights movement from the Tuskegee Institute in Alabama, toured Europe for a month in April-May.

Mrs. Robinson, who is nearly 90 years old, gave speeches and held meetings in cities in Sweden, Denmark, and Germany, including Lund, Copenhagen, Biedenkopf, Giessen, Essen, Stuttgart, Hanover, Cologne, Magdeburg, Zwickau, Dresden, Munich, Eichstätt, Berlin, Mainz, and Milan, Italy.

Mrs. Robinson’s Scandinavian tour began with a bang. She was greeted in

Schiller Institute vice chairman Amelia Boynton Robinson is made an honorary citizen of the city of Trier, Germany.



the university town of Lund, in southern Sweden, with a malicious slander on April 19 in the regional paper *Sydsvenska Dagbladet*, which—in an attempt force cancellation of an April 30 meeting at Lund University—smeared LaRouche’s associates as racists, and insinuated that

Mrs. Robinson was never involved with Dr. King.

‘Amelia Laid Her Life for Freedom’

This outrage backfired, as the European Labor Party, LaRouche’s co-thinkers in Sweden, widely circulated a press

EIRNS/Eike Gregory

sponsored a public meeting with LaRouche in the same Warsaw Polytechnical University, with 160 people attending from various institutions. Present were representatives from four ministries, eight embassies, 10 political parties (including the Polish Party of Engineers, which has already integrated the concept of the Eurasian Land-Bridge into its program), four Roman Catholic newspapers, members of the Polish industry lobby, institutes representing the chemical, electronic, and aerospace industries, the Polish Asia-Pacific Council, the Catholic Social Union (PZKS), as well as numerous professors from the various universities and the Polish Academy of Sciences.

Introductory remarks were made by the second chairman of the Polish Schiller Institute, Prof. Janusz Czyn. Then the president of the Catholic Social Union, Wieslaw Gwizdz, read a message of greetings from Bishop Antoni Dydycz, from Drohiczyn, in eastern Poland. The Bishop praised the services of LaRouche and the Schiller Institute, in helping to reestablish Poland's dignity, so that it is no longer an object of globalization, but can be an active protagonist in the community of nations.

release, quoting from such leading American Civil Rights figures as Coretta Scott King, Birmingham bus boycott instigator Rosa Parks, and the Rev. James L. Bevel, director of Non-Violent Political Action for Dr. King, on Mrs. Robinson's crucial role in the movement. Rosa Park said, "I support my friend, Amelia Boynton Robinson, as a courageous leader in the American Civil Rights movement. Amelia laid down her life for freedom, equality, the right to vote and prosperity for all people when she was beaten to a pulp, walking across the Edmund Pettus Bridge in Selma, Alabama, on 'Bloody Sunday,' March 7, 1965. . . . By honoring my friend Amelia, you honor me, the memory of Dr. Martin Luther King, Jr., and freedom fighters throughout the world."

The Lund meeting drew more than
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Build Argentina-Brazil Flank For Ibero-American Integration

Two hundred Brazilian and Argentine patriots gathered in the city of Sao Borja, Brazil June 1, to discuss how to forge a unified campaign for Ibero-American integration.

The all-day meeting, titled "Argentina-Brazil: The Moment of Truth," was called for by LaRouche's Ibero-American Solidarity Movement (M.S.I.A.) and organized jointly with jailed Argentine war hero Col. Mohamed Ali Seineldin's Movement for National Identity and Ibero-American Integration (MINEII).

Two international messages read at the meeting—from LaRouche and Seineldin—shaped the discussions.

Seineldin: 'Unity Has Eluded Us'

Seineldin's message laid out the problem faced by Ibero-America: Despite the many patriots who uphold the same principles, and, like himself, seek at every opportunity to foster national sovereignty, economic development, and the integration of their nations, unity has eluded them, and their cause has so far failed. "Time passed, and our peoples were subjected to the most evil lib-

eral system in history: based on a fraudulent 'foreign debt,' one by one we fell. . . . The crisis has reached unimagined levels, and only one option remains: 'Either we all save ourselves, or we will all sink together.'"

LaRouche's message, titled "Divided Is Conquered" pointed to the answer to the problem raised by Seineldin.

LaRouche: 'Divided Is Conquered'

LaRouche explained:

"Nineteen years have passed since the perfidious British monarchy conceived, concocted, and launched its 1982 war against Argentina. Since that war, we have watched the sovereignties of nearly all of the republics of Central and South America destroyed. . . . Today . . . only Brazil has not yet been stripped of the quality of sovereign self-government which existed in early 1982. Brazil is therefore the chief target of the enemies of humanity within this hemisphere."

Yet, if each nation fights for its sovereignty alone, "all of our nations will be destroyed, a destruction caused by our

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Brazil Testimony Slams NGO's

Brazilian LaRouche representative Lorenzo Carrasco was the first witness to testify May 22 before a Parliamentary Investigatory Commission recently created by the Brazilian Senate, charged with investigating the activities of Non-Governmental Organizations (NGO's) in Brazil. Prince Philip's World Wide Fund for Nature (WWF), the godfather of environmentalist NGO's, recently moved to shut down LaRouche's co-thinker organization in Brazil, the M.S.I.A., in a frivolous slander suit.

Carrasco's testimony proved to be a

strategic bombshell against the role of the environmentalist NGO's, which are threatening the sovereignty of Brazil, as well as many other nations. He was questioned for several hours by the nine participating Senators on a wide range of matters, including the character and international role of *EIR* founder LaRouche. The proceedings were televised nationally on Senate Cable TV.

Carrasco is the co-author of the just-published Portuguese-language book, *The Green Mafia: Environmentalism at the Service of World Government*.



EIRNS/Brian Lantz

Mississippi State Rep. Erik Fleming (right) briefs Monterrey press on energy deregulation.

U.S. Spokesmen Warn Mexicans Beware Privatization Pirates!

On May 21-26, Harley Schlanger, the U.S. Western regional spokesman for Lyndon LaRouche's 2004 Presidential campaign, toured the cities of Guadalajara, Guanajuato, and Mexico City, where he spoke about the Bush League "energy pirates" behind the California energy crisis, and why they have targetted Mexican gas, oil, and electricity resources.

Schlanger's visit was followed only a week later by Mississippi Democratic State Legislator Erik Fleming and Brian Lantz, another associate of LaRouche, who spent a week in the industrial bor-

der state of Nuevo Leon. Both tours were organized at the invitation of the Ibero-American Solidarity Movement.

Schlanger addressed several manufacturers' councils on the criminal collaboration between the corrupt Bush Administration and the companies of Bush's biggest financial supporters—energy companies like Enron and Reliant, which have driven up energy costs and looted Californians blind, while the Bush Administration refuses to "interfere with the free market." In Mexico City, Schlanger held private meetings with legislators and other

U.S. National Mission

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expand the scientific work in our universities, to build the laboratories, to get the new projects and new productive technologies, the new products, in place. And, to think about rebuilding this world, to be able to tell our children, who come 25 years down the line: 'What we're going to do for you, is, we're going to give you a better world. And, that's what we're doing now.'

Ibero-American Integration

Continued from page 71

lack of unity in a common cause," he warned. Our common cause must be the fight for the principle of the general welfare, the higher principle upon which the principle of national sovereignty is based.

'If we fight to defend our nation, and do not defend that principle, we shall each and all be defeated and crushed. If we can unite around that principle

political leaders, at the offices of the Chamber of Deputies, the Mexican Society of Civil Engineers, and the National Society of Economists.

Schlanger was interviewed by TV, radio, and the press—typified by an article in a Guadalajara paper, *Ocho Columnas*, which covered his tour under the headline "Warning: It Would Be Suicide To Privatize Electricity. U.S. Crisis Would Be Repeated."

Stockholder Values vs. General Welfare

On June 1, Fleming and Lantz were in the City Council of Monterrey, capital of Nuevo Leon, to brief deputies from all four Mexican political parties on the lessons Mexicans must draw from the California debacle. After the meeting, 20 reporters descended on the visitors, and interviewed them on their opposition to privatization.

In his later address to 55 delegates from Mexico's public health workers union, with 23,000 members in the state of Nuevo Leon alone, Fleming described the need to win the battle for D.C. General Hospital, so that it can serve as an "indispensable victory" to inspire citizens everywhere. He urged the union delegates to give the Mexican people the facts and figures they need, to understand what privatization would cost them, in financial terms and in human lives. "The people must be won to our side," he insisted.

The head of the union accepted Fleming and Lantz's invitation to send a delegation to Washington, D.C., to observe and report back on the D.C. General battle first-hand.

which is a higher authority than any nation, that principle will then provide the means by which we may save each of our nations. Divided, even divided by our pride in our sovereignties, we shall each be destroyed. . . . United, as part of a worldwide effort on behalf of a common principle of national sovereignty, we can win back the sovereignty which has been lost, and much more besides."

Schiller Institute Concert Honors D.C. General Hospital

The Mother's Day Marian Anderson Memorial Concert in honor of D.C. General Hospital, given at the Ebenezer United Methodist Church in Southeast Washington May 13, was conceived and implemented in the spirit of the fight for the General Welfare simultaneously being carried out by the LaRouche political movement and Pope John Paul II.

The success of the Schiller Institute concert came from a combination of the artists who were there, sopranos Detra Battle Sparrow and Elaugh Butler, tenor Reginald Bouknight, baritone Andre Solomon-Glover, and Sylvia Olden Lee; and those who weren't, William Warfield (who was unable to attend because of illness) and Marian Anderson, whose beautiful photo performing at the Lincoln Memorial adorned the concert posters and program.

'The Fight Throughout the Whole World'

In a brief introduction to the concert, Dennis Speed promised that the reasons why the Civil Rights movement had been rooted in the churches would become evident as the concert unfolded. He then introduced his wife, Lynne Speed, who located the fight to save D.C. General in the context of Friedrich Schiller's view of the dignity of man. D.C. General leader Charlene Gordon then took the pulpit. Holding up her "Save D.C. General" poster, which was completely covered with signatures from around the world, she gave an impassioned speech, challenging everyone to join the fight to save D.C. General. She said she had just returned from the Schiller Institute's international conference in Germany. "This was a life-changing experience for me. Before I went, I saw how important our own fight was here, because I have worked at



EIRNS/Stuart Lewis



EIRNS/Stuart Lewis

Sopranos Detra Battle Sparrow (left) and Elaugh Butler (above) perform at the Mother's Day Marian Anderson Memorial concert in honor of D.C. General Hospital.

D.C. General for 18 years. But now I have learned about the fight throughout the whole world: in Russia, throughout Europe, in Africa." The entire audience then rose to sing the Negro National Anthem, "Lift Every Voice and Sing."

The interplay between the Bach, Beethoven, Schumann, Schubert, Mendelssohn, and Handel on the pro-

gram, and the beautiful selections from the repertoire of Spirituals, especially the magnificent "Life of Christ" cycle of Roland Hayes, created an awareness and discussion among the audience of the unifying quality of *agapē* embodied in this concert, dedicated to the ecumenical cause of promoting the General Welfare of all mankind.

Robinson Tours Europe

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70 people, mostly students, but also including several reporters (who appeared "with their tails between their legs").

In Copenhagen, Mrs. Robinson recounted the history of the voting rights movement in America, noting that the Voting Rights Act was trampled on in the 2000 elections, when Lyndon LaRouche's votes were trashed by the Gore campaign. She concluded by singing her favorite Spiritual, "This Little Light of Mine."

In Former East Germany

One of the highlights of Mrs. Robinson's tour of Germany was an address in Magdeburg, in former Communist East Germany. She spoke before 150 high

school students in the school gym, responding to dozens of questions from the enthusiastic crowd.

In Milan, she spoke at an event at Catholic University organized by the Civil Rights Movement-Solidarity, which was attended by over 130 people, and was received at the Milan City Hall by officials of the Mayor's cabinet. Her visit was covered by the press, with a long interview in the Roman Catholic daily *Avvenire*, and TV and radio segments of her speaking at the Solidarity Movement conference.

The May 29 reception for Mrs. Robinson, hosted by the Deputy Mayor of Mainz, was attended by 30 guests, including representatives of the parties in the municipal council, and of several foreign consulates.

Schiller's *Don Carlos*: The Concept of the Sublime

Opera and Theater Productions Grace Washington, D.C.

Whether it was intended as such or not, the unprecedented, nearly simultaneous performances of Friedrich Schiller's "dramatic poem," *Don Carlos*, both in an English-language Washington premiere at the Shakespeare Theatre, and in Verdi's Italian operatic version (*Don Carlo*) at the Kennedy Center, represented a significant political-cultural intervention in the nation's capital during the first weeks of the incoming Bush Administration. Certainly the references to *auto da fé* (burning of heretics) in the play, and the actual scene in the opera, as well as the horror of the Grand Inquisitor, brought to mind the current Administration's commitment to the death penalty, and the dangers inherent in its right-wing, so-called Christian Fundamentalist popular base, as reflected in the Bush Administration's Faith-Based Initiative and its Attorney General John Ashcroft. In addition, the two performances provided a unique opportunity to see the same poetic ideas developed in two different, but related, media: drama and opera.

The impact of the performances was further enhanced by the wonderful "Don Carlo(s) Alive!" project of the education departments of the Shakespeare Theatre and the Washington Opera, which brought students and teachers from nine public, independent, and parochial schools in Washington, D.C., Virginia, and Maryland, to explore these two works over the course of three months [SEE accompanying articles, page 79]. The educational intent of the effort was also reflected in the extensive background notes provided in the program "Asides," and in the Stagebill.

As president of the U.S. Schiller Institute, and the editor and primary translator of three volumes of Schiller's works—including *Don Carlos*, "Letters on Don Carlos," and much of his poetry and aesthetic writings—I must say that



Carol Rosegg

Robert Sella as Don Carlos and Enid Graham as his stepmother Queen Elizabeth, in the Shakespeare Theatre production of Friedrich Schiller's "Don Carlos."

it was a joy to see this play performed in the United States, and I would hope that director Michael Kahn and the Shakespeare Theatre, which also performed Schiller's *Mary Stuart* ten years ago, will perform other Schiller plays, and help spark a renaissance of Schiller—whose works were much more widely known in the period of the Lincoln Presidency—in the United States.

Although Schiller developed as an artist on the shoulders of Shakespeare, he had the advantage of living during the successful American Revolution against the British Empire. *Don Carlos* was begun in 1783 and completed in 1787, eleven years after the Declaration of Independence, four years after the War of Independence was finally won, and only two years before the adoption of the U.S. Constitution and the abortive French Revolution.

As can be seen in *Don Carlos*, in his "Romantic Tragedy" *The Virgin of Orleans*, and in his drama *Wilhelm Tell*—as well as in his early play *Intrigue and Love*, where he takes a stand against

the sale of Hessian mercenaries to the British during the American Revolution—Schiller's passion is for republican freedom, as against an oligarchical imperial system. This conflict, and his political commitment to republicanism, is clear in all of his aesthetic, as well as historical writings. For example, in his lecture, "The Legislation of Lycurgus and Solon," Schiller counterposes the slavocracy of Sparta under Lycurgus, where the individual is merely an instrument of the state, to the freedom of Athens under Solon, where the state is only justified if it serves the development of the people.

Don Carlos, A Republican Prince

As Schiller makes clear in his "Letters on Don Carlos," the play is not primarily about friendship or about love, as some comments in the Shakespeare Theatre's program notes tend to suggest. As Schiller writes: "And what were thus the so-called unity of the play, if it should not be love, and could never be friendship? From the former proceed the three first

acts, from the latter the two remaining, but neither occupies the whole. Friendship sacrifices itself, and love is sacrificed, but it is neither the latter nor the former, which is made a sacrifice by the other. Thus must still some third be at hand, that is different from friendship and love, for which both have worked and to which both have been sacrificed—and if the play hath a unity, where else could it lie than in this third?”

Schiller then goes on to write that the favorite subject of discussion in the decade prior to his writing *Don Carlos* was “about spreading a purer, gentler humanity, about the highest possible freedom of the individual within the state’s highest blossom.” He continues that, when he became acquainted with the Prince of Spain, he determined to make him the dramatic instrument for realizing this dream. “Everything I found, as through a ministering spirit, thereby played into my hands; sense of freedom in struggle with despotism, the fetters of stupidity broken asunder, thousand-year-long prejudices shaken, a nation which reclaims its human rights, republican virtues brought into practice, brighter ideas into circulation, the minds in ferment, the hearts elevated by an inspired interest—and now, to complete the happy constellation, a beautifully organized young soul at the throne, come forth under oppression and suffering in solitary unhindered bloom.”

Thus, the drama, as Schiller writes, treats of an “enthusiastic design, to bring forth the happiest condition, which is achievable to human society, and of this enthusiastic design, how it appears in conflict with the passion” of Don Carlos for his stepmother, the youthful Queen Elizabeth. But for Schiller, Don Carlos “had to pass through the fire of a fearful test and prove himself in this fire. Then only, if we have seen him wrestle successfully with an *internal* enemy, can we promise him victory over the external hindrances, which are thrown against him upon the bold reformer’s path.”

Schiller’s ‘Sublime’

My major criticism of the performance of the play, as well as of some comments in the program notes, is that this concept

of Don Carlos is not fully realized. From the very beginning, Carlos’s passion must not obscure his potential to rise above that passion, to become such a republican prince. As Schiller writes, “The future great man should slumber in him.” Robert Sella, who played Carlos, did not sufficiently maintain this tension in the character. At the end of the play, Carlos says to Elizabeth: “A purer fire hath purified my being. All my passion dwells within the graves o’th’ dead. No mortal appetites divide this bosom more. . . . O Mother, finally I see, there is a higher good, more to be wished for than possessing thee.” At this point in the performance, when Don Carlos overcomes his passion, the transition is almost out of character, for lack of adequate foreshadowing in the preceding action.

This is compounded by the way director Kahn chooses to end the play. In Schiller’s text, when they are discovered together, the Queen collapses in a swoon, and Carlos rushes to her and takes her in his arms. The King then says to the Grand Inquisitor: “Now Car-

dinal! I’ve done the part that’s mine, / Perform the part that’s yours.” He exits, and the play concludes.

Kahn, however, ends the drama in a sensational manner, which undermines the sublime state of mind to which Carlos has finally risen. In the performance, when the King exits, Carlos is surrounded and apprehended by agents of the Grand Inquisitor. He is confronted with a life-size crucifix, and light effects are employed to suggest that he will suffer the fate of *auto da fé*—being burned at the stake. In the face of the horror of the Inquisition, Don Carlos lets out a terrifying cry.

In a recent article entitled “A Philosophy for Victory: Can We Change the Universe?,”* Lyndon LaRouche makes the following observation:

“Schiller’s greatest achievement, beyond what Shakespeare accomplished at his best, lies in Schiller’s degree of emphasis upon the principle of the *sublime*. This distinction is shown most efficiently in his treatment of Jeanne d’Arc. Classical tragedy tends too often, to show how a society destroys itself, often by

the deep-going moral defects of those it has chosen to place in positions of great authority, as we might be worried about the newly inaugurated President George Bush, today. That is useful, and uplifting for the audience which recognizes the possibility of a willful choice of alternative to tragedy. However, it were better to affirm the alternative, which, as in the real-life case of the Jeanne d’Arc treated by Schiller, locates the higher meaning of life and purpose of action, as in Beethoven’s Opus 132 string quartet, in the sublime.”



Carol Rosegg

Carlos appeals to his father Philip II, played by the Shakespeare Theatre’s Ted van Griethuysen.

* *Executive Intelligence Review*, March 2, 2001 (Vol. 28, No. 9).

LaRouche writes further: “The comparison of Schiller’s treatment of Jeanne d’Arc to Shakespeare’s tragedy of Hamlet, shows the higher level in Schiller, as Plato’s dialogues supersede the methods of the such great artists as Aeschylus and Sophocles.”

By ending the play as director Kahn does, he effectively undermines the sublime state of mind to which Don Carlos has risen, by defeating the internal enemy of his passion for Elizabeth, so that he may devote himself to the liberation of Flanders from the Hapsburg imperial system of his father Philip II. As early as April 14, 1783, soon after he began to think about writing *Don Carlos*, Schiller had written that Carlos “has the soul of Shakespeare’s Hamlet . . . and the *pulse* of myself.”

But Carlos is not a tragic figure like Hamlet. In contrast to Hamlet, who in his Act III “To be or not to be” soliloquy, decides not to change his suicidal behavior for fear of the “undiscovered country,” Don Carlos, by the play’s conclusion, has risen to the level of self-conscious cognition, embracing the “undiscovered country” in his intention to flee Spain to liberate the oppressed people of Flanders. The fact that King Philip delivers him to the Inquisition is not ultimately tragic, but rather, sublime, in a way which anticipates Schiller’s treatment of Jeanne d’Arc in *The Virgin of Orleans*.

This is why the ending of the performance is so wrong. In real life, Jeanne d’Arc was burned at the stake. In his *Virgin of Orleans*, Schiller, as in *Don Carlos*, changes the literal history, to have Jeanne die on the battlefield in defense of the nation of France, which only came into existence decades later under Louis XI, as a result of her decisive, earlier leadership. However, it is as inconceivable that Schiller’s Don Carlos would have responded to the Inquisition in the way Kahn portrays, as that Jeanne d’Arc would have.

(A number of years ago, I saw a performance of Schiller’s *Mary Stuart* in Hannover, Germany, where a similar mistake was made by the director. In that play, just before she is taken away to be beheaded, Mary Stuart, who like

Don Carlos has overcome her youthful passions to rise to the level of cognition, confronts the Earl of Leicester—her former lover, now betrayer—for the last time. In Schiller’s text, Mary tells Leicester that she has risen to the state of mind in which earthly inclinations no longer tempt her; but, in the performance, the director had Mary kiss Leicester at precisely this sublime moment.)

Even in *Don Carlos*, written early in his career, Schiller had already gone beyond Shakespeare in this sense, by emphasizing the principle of the sublime (*Erhabene*). If we look at the protagonists of Shakespeare’s tragedies, such as Hamlet, Lear, Othello, or Macbeth, they are destroyed—and with them, their states—because they refuse to rise above circumstance and their passions, to the level of reason. Their destruction is as inevitable as a conclusion deduced logically from a false-axiomatic assumption.

In the case of Schiller’s heroes, however, even if they are destroyed, they succeed in triumphing over death. In his essay “On the Sublime,” Schiller makes precisely this point about man. Man is not free, insofar as there is even one exception to his freedom, namely, death. By overcoming death through the submission of one’s own will to the Divine Will, one demonstrates that man is not a mere animal, motivated by self-preservation and the search for pleasure and avoidance of pain. It is in the face of death, that man demonstrates his true human nature, as characterized by a super-sensuous, *moral* independence.

Truth in Verdi

In this light, it is useful to contrast the ending of Verdi’s opera *Don Carlo*, to the play. There are many changes which Verdi introduces to the Schiller original, including emphatically the conclusion.

In the play, after King Philip has the Marquis Posa assassinated, Carlos disguises himself as a monk, in order to make his way to Elizabeth’s chamber past the guards, who superstitiously believe that the ghost of his grandfather, the Emperor Charles V, walks the corridors in monk’s attire.

In the opera, Verdi has Don Carlo rush to the tomb of Charles V in a monastery to meet Elisabetta. When the King arrives to turn him over to the Inquisition, suddenly a monk, dressed as the Emperor, steps from the tomb. The officers, fearing what they believe to be an apparition, free Carlo, who is then led away by the monk.

Thus, even though he changes the ending of the original, Verdi’s conclusion shows that he understands Schiller’s intention. Don Carlo does not die at the hands of the Inquisition. He lives in what LaRouche calls the simultaneity of eternity. Compare this ending to that of *The Virgin of Orleans*, where Jeanne d’Arc’s final words are, “Brief is the pain, eternal the joy,” words which Beethoven set to music in a canon.

Ironically, even though Schiller is critical of the Marquis Posa, it is Posa’s sublime self-sacrifice for Don Carlos and for the liberation of Flanders, which is instrumental in effecting the radical internal change in Don Carlos himself. Schiller makes the same point in his poem “The Pledge” (*Die Bürgschaft*). There, it is Damon’s willingness to sacrifice himself for his friend, which conquers the heart of the tyrant Dionysus. Similarly, in his *Philosophical Letters*, in the section entitled “Sacrifice,” the character Julius writes: “It is thinkable, that I enlarge mine own happiness through a sacrifice, which I offer for the happiness of others—but also then, when this sacrifice is my life? And history has examples of such sacrifice—and I feel it lively, that it should cost me nothing, to die for Raphael’s deliverance. . . . It is indeed ennobling to the human soul, to sacrifice the present advantage for the eternal.”

The Shakespeare Theatre

The best individual performances of the Shakespeare Theatre production were those of King Philip, played by Ted van Griethuysen, the Grand Inquisitor by Emery Battis, the Duke of Alba by Ralph Cosham, Domingo by Floyd King, Count of Lerma by Edward Gero, and Elizabeth by Enid Graham.

In Schiller’s play, the Queen is the most beautiful soul. She is as much a

revolutionary as Posa, and as Carlos eventually becomes, but she suffers neither from Carlos's crippling passion, nor from Posa's tragic delusion about the King. One's heart reaches out to her, in that she has what Schiller describes as both grace and dignity, under conditions in which she is a virtual prisoner in the Spanish Court.

In the scene between Princess Eboli and Don Carlos, Eboli, played by Elizabeth Long, did not convey sufficient emotional depth, in her discovery that Don Carlos still loved Elizabeth and not her, to justify her subsequent betrayal of the Queen and submission to the King's wishes.

The Marquis Posa, played by Andrew Long, is a character with whom Schiller came increasingly to identify in the process of writing the play. Contrary to those who falsely portray Schiller as reflecting the philosophy of the Enlightenment and the French Revolution, his ideas were actually those of the American Revolution. In fact, it has been suggested that the positive model for Posa was the Marquis de Lafayette, who fought in the American Revolution in 1776, and in 1784 made a trip to America which made a great impression in Europe at the time Schiller began to compose the drama.

But, on the other hand, Schiller was harshly critical of the Marquis in his "Letters on Don Carlos," criticizing him for arrogating to himself a "despotic arbitrariness in respect to his friend" and for taking "refuge in intrigue." Speaking of the Marquis, Schiller wrote: "I selected . . . an entirely well-wishing character, entirely exalted over every self-serving desire, I gave him the highest respect for another's rights, I even gave him the creation of a universal enjoyment of freedom as his aim, and I believe myself to be in no contradiction with universal experience, if I cause him, even on the way thither, to stray into despotism."

In the performance, the paradoxical nature of Posa's character needed to be brought out more clearly. One missed opportunity to achieve that was at the end of Act III, Scene 10. The stage directions given by Schiller call for the Mar-



Dwayne Croft as Rodrigo (Marquis Posa) (right) and Paata Burchuladze as King Philip, in the Washington Opera production of "Don Carlo."

quis to kneel and kiss the hand of the King. This is the *punctum saliens* of the play. Posa begins the scene by saying that he would not be the servant of a King; and yet, in the course of the scene, in which he attempts to win over the King to his ideas of freedom, he instead is won over to the delusion that he can bring his ideals to fruition by working through the King, by becoming his servant, despite the King's rebuff of those very ideals. Kneeling and kissing the King's hand, as called for by Schiller, would have helped to underscore Posa's failure at this critical juncture in the play.

Otherwise, the production's period costumes were welcome indeed, at a time when so many performances attempt to appear "relevant" by propitiating today's New Age *zeitgeist*. The scenery was very effective, particularly in conveying the Byzantine nature of the Spanish court.

Although I have not been able to study Robert David MacDonald's translation, the play's most famous line was, unfortunately, translated poorly. In the well-known Act III dialogue between the Marquis Posa and King Philip, MacDonald renders Schiller's stirring call in the mouth of Posa to the King—"Geben Sie uns Gedankenfreiheit"—as the reduced "Give us the right to think,"

when it were better translated, "Give to us the liberty of thought."

The Washington Opera

The production of *Don Carlo* by the Washington Opera continues the company's celebration of the Verdi Centenary. The performance was excellently directed by Sonja Frisell, and the orchestra and opera chorus beautifully conducted by Sir Edward Downes.

Verdi began working on the opera in 1866, shortly after the successful conclusion of the American Civil War. It was premiered in Paris on March 11, 1867. The original version included five acts, but was later cut to four by Verdi in 1883.

The act which was excised from the original was the first, set in the forest of Fontainebleau in France. This act, which is still often performed, is especially important in setting the stage for the entire opera, and the decision not to include it in this performance, did weaken the audience's comprehension of the character of Don Carlo and of the circumstances of Elisabetta's marriage to King Philip. Although this scene does not appear in Schiller's play, it nonetheless gives the audience an introductory glimpse of the earlier love shared by Don Carlo and Elisabetta. Don Carlo in this scene is portrayed as a "future great

man.” We also see Elisabetta’s nobility and voluntary self-sacrifice for the cause of peace, out of love for the people of France, who have suffered the ravages of war between France and Spain.

Otherwise, the performance was magnificent. Paata Burchuladze, as King Philip, was excellent in conveying this complex character. Daniel Sumegi, as the Grand Inquisitor, was blood-curdling. Elizabeth Bishop, as Princess Eboli, was excellent in conveying the character, although the “veil song” in Act One, Part II, was not as energetic as one would have liked. Veronica Villarroel played Elisabetta beautifully, with tremendous nobility throughout. The only criticism I have is that, at times, early in the performance, her voice was drowned out by the orchestra. Miguel Olano, who substituted for Ramon Vargas owing to illness, and who had performed in the opera *Turando* the night before, gave an admirable performance as Don Carlo, as did Dwayne Croft as Rodrigo.

Artistic Composition and History

Since Verdi clearly altered the Schiller text in composing his opera, and since Schiller himself altered historical detail in writing the original drama, it is useful to reflect on the relationship between an artistic composition and historical detail. The fact is that a work of art is never an historical documentary; nonetheless, it must always be truthful. As Schiller writes in his essay, “On the Pathetic,” “It is the poetic, not the historical truth, upon which all aesthetical effect is grounded. The poetic truth does not exist therein, that something has actually occurred, but rather therein, that it could occur, therefore in the inner possibility of the matter.”

In his aforementioned essay, Lyndon LaRouche elaborates on this point as follows: “The idea presented on the Classical stage,

must be a truthful representation of the idea underlying the sensory experiences of the panorama, but, the panorama and the stage are different media, differing to that effect, that, to present the idea of certain events on a vast area and lapse of time, *compactly* on the stage, the composer must, as Schiller did with the figure of Posa in *Don Carlos*, create on stage the *idea* which may not correspond exactly, in every detail introduced, to the actual history, but corresponds, with historical truthfulness, to the essence of the historical reality referenced. The truth remains the same in both cases, but the media upon which the truth is staged, differ. There is no excuse, for writing tragedy as fiction, nor for interpreting Classical tragedy as the writing of fiction. Thus, no great tragedian would ever compose a work in response to some arbitrary choice of subject-matter; he would always choose a subject whose treatment was faithful to real history, and would choose only subjects for which he had first discovered a truthful representation of the real-life tragedy, a truth demonstrable on stage, by the means available to him.”

Thus, the fact that Schiller altered

historical detail in his drama, or that Verdi reworked Schiller’s play for the opera, in no way detracts from the historical and poetical truthfulness of both presentations, which is to be found in the *idea*. Both the play and the opera correspond to the essence of the historical reality referenced. Moreover, both performances, employing different media, call upon their audience to act today to bring about the liberation of mankind—a liberation not achieved by Don Carlos, Posa, or Elizabeth.

As Schiller writes in “On the Pathetic”: “Poetry can become to man, what love is to the hero. It can neither advise him, nor strike for him nor otherwise do work for him; but it can educate him as a hero, it can summon him to deeds and to all that he should be, equip him with strength.”

Having viewed these performances, we are moved to complete the republican revolution of which the Marquis Posa, Don Carlos, and Elizabeth dreamed. We are moved to emulate Elizabeth’s grace and dignity, to fight for Posa’s republican ideal, while avoiding his recourse to intrigue and despotism, and to imitate Don Carlos in overcoming our own passions—even if, as in his case, it involves an injustice perpetrated against us—and to rise to the level of cognition, before humanity as a whole is plunged into a new Dark Age, much like that which the Spain of Philip II visited upon Europe in the Sixteenth century.

As Heinrich Heine wrote in his essay attacking the Romantic School: “Schiller wrote for the great ideas of the Revolution; he destroyed the Bastilles of the intellectual and spiritual world; he helped to build the temple of liberty, that very great temple which is to embrace all nations like a single community of brothers; he was a cosmopolitan Schiller threw himself heart and soul into history, became enthusiastic about the social progress of mankind, and wrote about world history.” Contrasting Schiller’s works to those of Goethe, Heine writes, “Goethe’s works do not beget deeds as do Schiller’s.” Ultimately, it is the inspiration to action for the betterment of mankind, which constitutes the truly noble aim and purpose of Classical dramatic art.

—William F. Wertz, Jr.



Margot Ingoldby Schulman, The Washington Opera

Elizabeth Bishop as the Opera’s Princess Eboli.

‘Don Carlo(s) Alive!’— A Wonderful Educational Project

The Shakespeare Theatre and the Washington Opera did more than produce rare performances of Schiller’s play *Don Carlos*, and Verdi’s adaptation of that in his opera *Don Carlo*, in the nation’s capital this spring. They also took unique advantage of the fact that both works were being staged at approximately the same time, to collaborate on a wonderful educational project, “Don Carlo(s) Alive!,” which allowed students and teachers in nine schools—public, private, and parochial—in the Washington metropolitan area, to explore the music, drama, literature, and history of these two works, over the course of several months.

“Don Carlo(s) Alive!” began in November and December 2000, with professional development workshops for teachers, to help the teachers, who were selected by application, increase the students’ understanding of the play and the opera, as the Shakespeare Theatre’s Education Director, Dawn McAndrews, reports in her interview below. After

those workshops, the teachers attended the final dress rehearsal of Schiller’s *Don Carlos* on Jan. 14, 2001.

During February 12-16, the Shakespeare Theatre mounted in-school workshops at all participating schools, allowing the students to explore the process of creating characters and making choices, with educators and artists from the Shakespeare Theatre. Then, during February 26-March 7, artists from The Washington Opera’s Education Department introduced students to the music of *Don Carlo*, and to their lives as artists. On March 6, participating students and teachers attended a performance of the play at the Shakespeare Theater, and on March 14, they attended the final dress rehearsal of the opera at the John F. Kennedy Center. Finally, during the week of March 19-26, follow-up visits by the Shakespeare Theatre, gave students an opportunity to discuss their reactions to both the play and the opera with artists of both disciplines.

The Shakespeare Theatre is planning a similar collaboration next fall, with Arena Stage, as both theaters will be staging Greek tragedies. The Shakespeare Theatre plans a three-hour adaptation (using new translations by Nick Rudall) of Sophocles’s *Oedipus Trilogy* (*Oedipus Rex*, *Oedipus at Colonnus*, and *Antigone*), and Arena Stage will do *Agamemnon and His Daughters*, adapted by Kenneth Cavander from plays by Euripides, Sophocles, and Aeschylus. They plan events around these parallel productions, although nothing is definite yet, according to Dawn McAndrews.

To get a live sense of the impact of this unique project on the teachers and students involved, Fidelio also interviewed Thomas Edison High School drama teacher Brad Rickle and School Without Walls High School teacher Joan Moten, both of whose students participated in the project.

Thomas Edison is located in Alexandria, Va., right across the Potomac River from Washington, D.C. As Mr. Rickle makes clear in his interview, it was a wonderful, enriching experience for all involved, and one that, it is to be hoped, will be repeated in cities across the nation.

—Marianna Wertz

‘The playwright packed everything into the verse structure . . .’

Dawn McAndrews, Director of Education for The Shakespeare Theatre in Washington, D.C., spoke about this year’s “Don Carlo(s) Alive!” project with Marianna Wertz, vice president of the Schiller Institute, on April 12.

Fidelio: You began the “Don Carlo(s) Alive!” project back in November.

McAndrews: We started with the teachers months in advance. Dr. Gitta Honnegger, from Catholic University, came in and did the first workshop, on

Schiller. Then, a month later, someone from the opera, Sorab Modi, came in and did a workshop with the teachers and the docents from the opera, on Verdi and the different versions of the opera. The teachers were given copies of the script, our guide to this season’s plays, a teacher curriculum guide, the libretto, a copy of the CD, lots of information, so that they had plenty of time to plan out how they would start to include this in their curriculum when we started the program with

students in January. So they had essentially two months to think, “Okay, this is how I’m going to fit this into my curriculum. These are the days of the week when I’m going to cover this, and these are when the guest artists are coming.”

Fidelio: Can you give me an idea of the content of that, with respect to Schiller? Our audience is very focussed on Schiller.

McAndrews: What Dr. Honnegger

talked about was very specifically focussed on a chronology of Schiller as a writer, and the different periods of his writing and where he was in his life. For instance, the four years it took to write *Don Carlos*, his teaching history under an assumed name, and his falling in and out of grace and living in exile, so to speak. She talked a lot about how his life and the relationships he was having connected to how he was able to write the play, why he went back and re-wrote the first part in verse, how it shifts from Don Carlos to Posa, given the philosophical shift in his own beliefs.

We made one mention of the fact that it's not historically accurate, and that's not what Schiller is writing about. Then she really took them through a quick, but succinct biography, based on which plays came when, what was happening in his life, and a little bit of world events. She's not German, she's Austrian, but she has lived in Germany. She gave us a little bit of understanding of the political structure of the time and the city-states, and how Germany was coming together in nationalism, and the other revolutions in the world, and what the fervor and the climate were.

She tried to give us a little bit of an understanding of Germanic people and how the play is received. "Giving men the right to think," and that line, how it's received nationally. We talked a little bit about how many productions there were during the Nazi period, and how certain lines had to be cut, but people still got up on their feet and cheered. So she gave us a really thorough understanding of Schiller and his time, and then how his time responded to Schiller.

Fidelio: One of the things we often stress is that Schiller looked at the American Revolution as a model for Germany . . .

McAndrews: Yes.

Fidelio: . . . and then was disappointed in what happened in the French Revolution.

McAndrews: Yes. And we talked a lit-



Carol Rosegg

Driven by emotional turmoil, Carlos commits an act of treason by threatening the person of his father the King.

tle bit about how he was disappointed with the French Revolution.

Fidelio: He wrote that "a great time has found a little people."

Fidelio: You went to the schools yourself. Can you tell me how the students responded and what happened?

McAndrews: I think the presentations were set up with a good order to them, in that we tried to go back and forth between a visit to the theater, and then a visit from an opera person, and a visit from a theater person, so that we were constantly asking them to compare the two. When I went in and did the in-school visits for theater, we worked a little bit on poetry and verse, because, clearly, there's a reason why Schiller is writing this play in verse.

What I did was have them do some work in iambic pentameter, and then I took a passage from the first act of the play and took out all the dialogue around it, and just left Carlos's monologues from the first scene. Then I took a scene from the end of the play and had them look at Carlos's dialogues with Elizabeth at the end of the play, before they're caught. We read them, somewhat out of context, but just to see what we'd get emotionally. What I was trying to get them to understand is, that the

playwright really packed everything we need into the verse structure, and there's a reason why they write in verse and not prose, and to see what you can get from the rhythm.

We looked at points in the first scene where Carlos rambles and has short, choppy sentences, and his vocabulary isn't as sophisticated, and his sentence structure isn't as sophisticated, and he's blaming other people, and he's not taking responsibility, and he doesn't seem to be in control of his emotions and they can overtake them. He's looking for another father figure, and he's blaming his father and his upbringing, and he's whining.

Then we looked at the scene at the end, and he's not without emotion, but he seems more in control of his emotions. His vocabulary has increased, he's a much more mature character, and we can see the arc of the play.

It's done a little bit more through Socratic method, so that I'm not giving that to them, they're actually reading it, and then I ask them to interpret what they've read—what do you see, how does this feel, if you were the actor saying this, what would it tell you, and they gave all the answers.

Fidelio: Did you ever consult, or have

you heard of the fact that Schiller wrote the “Letters on Don Carlos”?

McAndrews: Yes, and I did actually look at some of them, when I was preparing some of the dramaturgical stuff over the summer. One of the things that I found interesting in certain libraries, is that you can only find material written on Schiller, in English in any case, from very early in the Twentieth century.

Fidelio: Right, except for what the Schiller Institute has done.

McAndrews: Exactly. There’s very, very little. Trying to find a Schiller scholar in the United States was extremely difficult. I did look at the “Don Carlos Letters,” I looked at a lot of other of his writings, “Theatre As a Moral Institution,” a lot of other things, to get a sense of how he was feeling as a whole person during the writing of *Don Carlos*.

Fidelio: I asked about this, because I wanted to see how you treated the character of the Marquis de Posa with the students, which is developed in those letters by Schiller, his limitations as a figure.

McAndrews: One of the things that we talked about in the follow-up visits, was the role of the Marquis de Posa. We talked a lot about the arc of the play through *Don Carlos*, not leaving out Posa, but I wanted them to really watch Carlos’s development, and how he’s affected in different scenes by everyone around him. How he can be talking to Posa and be extremely motivated to save The Netherlands, and then talk to his dad and crumble, and talk to his step-mother, and how the Romanticism really works through Carlos. I think that’s the thing that keeps the play together. While I know some critics have said that it shifts to Posa, and who are we watching; but, I think the thing that makes the Romanticism, the style, work, is how we watch the torment or the tempest that happens to Carlos. So we asked them to focus on that.

Fidelio: The idea of Romanticism is a catching point with the Schiller Insti-

tute, because “Romantic” is a false label for this thoroughly Classical author.

McAndrews: I completely understand that, yes, without question.

Fidelio: Is this kind of project going on anywhere else in the country, with this kind of cross-collaboration?

McAndrews: Cincinnati Playhouse in the Park has—I don’t know if it’s an after-school program, or something that they do with a group of other arts organizations—there is a conference called Crossing Paths, which is an interdisciplinary conference that’s held every other year. The second year of it is this year, and it will be in Indianapolis. The goal of that is to get more interdisciplinary programs. It’s an education directors’ conference, predominantly, so the idea is that we would get together in a place and start the ferment. Opera America may know a little bit more about what other opera companies are doing these collaborations.

It’s hard to sync up with another arts organization. This happened accidentally, that we were both producing at the same time.

Fidelio: You just noticed it and decided to collaborate?

McAndrews: Exactly. Next season, since the Shakespeare Theatre and Arena Stage will be opening their seasons with Greek plays, we are going to be doing a collaboration with Arena. We haven’t talked about any specifics yet. I don’t know if it will be seminar-style. So we will continue to look for opportunities to help enliven the curriculum with other arts organizations.

Fidelio: One last question: How would



Queen Elizabeth and King Philip: “She is as much a revolutionary as Posa, and as Carlo eventually becomes.”

Carol Rosegg

you sum up the effect this had on the students?

McAndrews: From the follow-up visits that I did, I would say that it exceeded our expectations. The students all commented that their experience in the theater and at the Kennedy Center was definitely enhanced by the workshops; that they had had no exposure to opera before this. Those students who read the play and then saw the opera, were really able to converse about the differences, and ask astute questions about choices that the directors made, choices that the actors made, how we interpreted the texts, why did we cut certain scenes out, why did we make the Grand Inquisitor the way we did, why did we not have a baroque, ornate palace. A lot of really in-depth questions.

So, if our goal is to encourage the arts to be maintained as important in the curriculum, and that students will come and will appreciate it, and do want to be encouraged to think in those ways, then I think we were successful.

‘The students were really drawn to the character of Posa . . .’

Brad Rickle teaches drama at Thomas Edison High School in Alexandria, Va. He and his drama students, who are in the 11th grade, participated in the “Don Carlo(s) Alive!” project this year. He spoke with Marianna Wertz on March 27.

Fidelio: Tell me about the project.

Rickle: The project centered around students reading the play and the Shakespeare Theatre and the Washington Opera, both of their education departments, brought in folks to do workshops with the kids on both productions, the opera and the play.

Fidelio: Could you describe the workshops?

Rickle: Dawn McAndrews, the education director of the Shakespeare Theatre, did a fantastic job. She came in one day and did a lot of work with the kids with language, got them up on their feet, led a post-show discussion with them last week, to talk about the play and what they thought about the production of *Don Carlos* at the Shakespeare Theatre.

All of the instructors went to, I believe it was two workshops. One focussed on the play, and the other one on the opera. The opera folks sent us two opera singers, and they did a workshop on singing opera. That was fantastic.

Fidelio: Did they talk about *bel canto*?

Rickle: Yes, and they did demonstrations. One gal sang in her nightclub voice, pop-singer-type voice, and then sang something with her opera voice, so that the students could hear the difference between those two things. That was fascinating. Then there was another gentleman who sang as well. They talked about what you have to do to sing opera, what the demands of that are.

Fidelio: Like foreign language?

Rickle: Yes, and that was good, because



The paradoxical Marquis Posa (left), played by the Shakespeare Theatre’s Andrew Long, is “won over to the delusion he can bring his ideals to fruition working through the King.”

they talked about the foreign languages that they needed to know and how they learned them; the physical, vocal requirements; the commitment that’s involved in it.

Dawn focussed a lot on [director] Michael Kahn’s ideas about the production, and what he and [set designer] Ming Cho Lee were trying to make come alive in the play. We focussed a lot on the performance of the actors.

She asked the kids a lot of questions about what did they think about the performances, because they had read the script. Then in my classroom, we worked on learning about Schiller, learning about the time period in which the play was written, what was going on, not only in terms of dramatic literature, but just what was happening in the world at that time.

I also had the kids memorize a monologue from the play. Any character they wanted. So, some of them did Posa, some of them did Carlos, some of them did the Queen, about a minute or

minute and a half for each one.

The thing that had attracted me to the program was, I had seen a production of *Don Carlos* at Stratford two seasons ago. I had never heard of Schiller, I had never heard of the play, but I really liked the production that they did there.

Fidelio: Do you specialize in Shakespeare?

Rickle: I’m pretty much a generalist, because I teach high school. One of my passions is Shakespeare. Of course, I loved the play, because it was so connected to, I would say, a combination of *Hamlet* and *King Lear*, to a certain extent. Plus, it was a period and a dramatist that students in high school normally wouldn’t be exposed to.

I knew the play, and I thought the kids would really get into the passion of that play.

Fidelio: What did the kids say about the play?

Rickle: They loved it. They were really drawn to the character of Posa, in particular.

Fidelio: The famous scene between Posa and the King?

Rickle: Yes. And, of course, they loved the scene when he was killed, too! So shocking, the gunfire, and the way that it was staged to surprise them. They all kind of jumped up in their seats. That doesn't happen in the theater very often.

For them to watch a play of that length, and be into it the whole time, means the theater really did its job, really held their interest, which is not easy to do. The kids really enjoyed the whole experience.

Fidelio: Was this the first opera for many of them?

Rickle: Yes. I would say for probably 80 percent of them, it was the first opera they had been to.

Fidelio: Is this the first time you participated in such a program?

Rickle: I think it's the first time they've offered something like this. I think it was just a unique time-frame, in the sense that the opera was doing the same show that the theater did. So, I think they got together, they got grant money, and put this program together.

I jumped at the opportunity to take advantage of the program. You had to fill out a little application about why you wanted to do it, and what you hoped to get out of it.

I think any time students have an opportunity to see live theater, we need to take advantage of that. Because it's great to read the script, and we read scripts and do little scenes from them sometimes, but to see it come alive is very exciting for students.

Fidelio: Schiller is almost never performed in America . . .

Rickle: Right . . .

Fidelio: . . . and he was much better known in the period of the Lincoln Presidency, when Germans immigrated here in great numbers.

Rickle: I didn't know that.

Fidelio: Schiller was inspired by the

'Influences of History, Language, Art'

Joan Moten, a teacher at the School Without Walls Senior High School in Washington, D.C., reported on the impact of the "Don Carlo(s) Alive!" project on the thirty students from the school's "Music Theatre" and the "From Bach to Rap" classes who participated in the program. The school also participated in last year's Shakespeare Theatre/Washington Opera "Opera Alive!" project, which examined Shakespeare's *Othello* and Verdi's *Otello*.

Student discussion of what had been learned from the program included:

- The differences between the stage and musical productions, beyond the obvious.

- An increased understanding and appreciation of opera.

- The discipline and focus required to pursue a vocal music operatic career.

- The in-depth preparation required for the sets, staging, costumes, and lighting necessary for a stage production.

- The style of dress of the time period, with an opportunity for some to actually wear authentic outfits.

- Further biographical information about Friedrich Schiller and Giuseppe Verdi.

- The interdisciplinary influences, such as History, Social Studies, Theatre, Foreign Language, Art, as well as Music.

American Revolution. He wanted for Germany what had happened in America.

Rickle: Ah! I see!

Fidelio: He had lived through the French Revolution, and saw the hideousness of what that turned into. He wrote that "a great moment has found a little people." So, it's a shame, that people in America don't know him. That's why we founded the Schiller Institute.

Rickle: That's great. I was pleasantly surprised at how engaged the students were, with his language, with his themes, with his characters. They were really intrigued by the whole context of the play. They were fascinated with the Grand Inquisitor at the ending. They really got into it!

Just to take them to see the play would have been fine, but the workshops and all the study that was done, in preparation for it, really helped a lot.

Fidelio: It sounds like a wonderful program.

Rickle: It really was. I'm so happy that we had a chance to participate in it.



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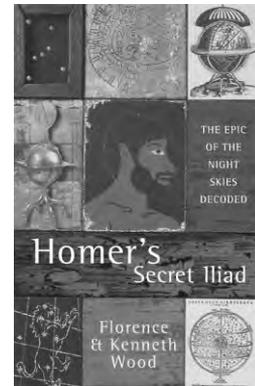
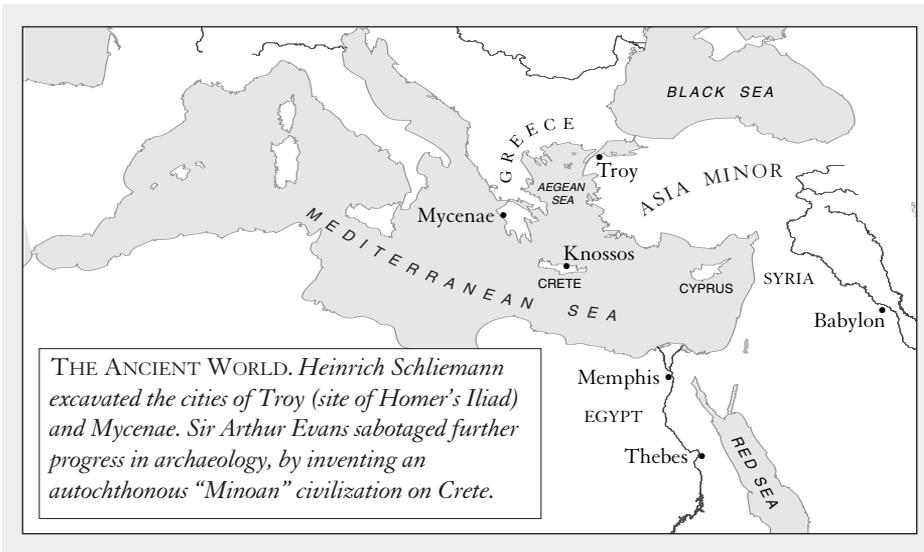
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**Homer's Secret Iliad:
The Epic of the Night
Skies Decoded**
by Florence & Kenneth Wood
London, John Murray, 1999
294 pages, hardcover, \$40.00

Archaeology and the Truth Of Man's Prehistory

The study of man's most ancient past is more important to the success of his future, than most of us comprehend. Unfortunately, in recent centuries, this has been understood and acted upon, by the oligarchic forces in society who seek to reduce mankind to the condition of beasts, and have twisted the study of pre- and ancient history to prove their definition of man, the better to accomplish this end. Outside of the vast body of work by Lyndon LaRouche, which locates man as a creature of cognition who has understood and acted upon his world for hundreds of thousands of years, only a few determined individuals have succeeded in approaching any aspects of the study of ancient man and civilization from outside the dictates of that oligarchical elite.

One happy exception to that is the 1999 release of *Homer's Secret Iliad: The Epic of the Night Sky Decoded*, by Florence and Kenneth Wood. Written by the daughter and son-in-law of Edna Johnston Leigh (1916-91), this book presents and develops Leigh's hypothesis, that the Homeric epics fall within that oral tradition of other ancient epics

which, through their sung recitation, transmitted to each succeeding generation profound scientific ideas concerning man's relationship to his universe.

Such a concept of man and civilization, which could transmit science, through art, since no later than the end of the last Ice Age, flies directly in the face of modern archaeology, which has been dominated by the British establishment for two centuries. How that British oligarchy has sought to destroy mankind's true history, is captured in another book published in 2000, *Minotaur: Sir Arthur Evans and the Archaeology of the Minoan Myth*, by J. Alexander MacGillivray. This work is the first even remotely objective assessment of the career of Evans, the celebrated excavator of Knossos on the island Crete, and the "discoverer" of the glories of a Minoan civilization, which he supposed to have given birth alone to later Classical Greek civilization.

The Role of Crete

For the word "discoverer," however, substitute, "fabricator." Without drawing the obvious conclusion himself, MacGillivray



**Minotaur:
Sir Arthur Evans and the
Archaeology of the
Minoan Myth**
by Joseph Alexander MacGillivray
New York, Hill and Wang, 2000
373 pages, hardcover, \$30.00

provides overwhelming evidence that Evans was a degenerate racist, deployed by the British Foreign Office, Prime Minister Gladstone, and Oxford University, at a minimum, throughout his life. His assignment was to erase the real history of Bronze Age Crete. That MacGillivray tiptoes around these conclusions is the great flaw of his book.

Ironically, however, MacGillivray was much more forceful and conclusive in a short article in the November/December 2000 issue of *Archeology* magazine, where he wrote: "While he led the field in revealing Minoan art to the public,

Evans allowed his literal reading of the Greek myths to distort his interpretation. . . . Though extremely well versed in ancient Egyptian ritual . . . Evans denied the influence of Egyptian religion on the Minoans. . . . More amazing is how Evans conceived of the well-known ancient Egyptian symbol for the horizon, the slope between two peaks, which adorns colonnades and buildings in Minoan art. He transformed the horizon symbol into what he called Horns of Consecration, ritual symbols that were shorthand for his supposed bull cult of Minos. . . . Once the trappings of his mythical agenda are removed, we will have to re-evaluate a large body of artifacts.” MacGillivray went on to propose that the famous “bull-jumping” fresco uncovered at Knossos, is not a depiction of an actual Cretan sport, but rather, a metaphorical representation of the constellations: “Orion confronts Taurus, composed of the Hyades and Pleiades, while Perseus somersaults with both arms extended over the bull’s back to rescue Andromeda.”

It was his reference to Egyptian astronomy in that article which caused this reviewer to pounce upon MacGillivray’s book, having long been convinced that the Cretan civilization of 2200-1500 B.C. was a critical link between the advanced astronomical knowledge which shaped ancient Egyptian civilization, and its influence on the development of Mycenaean and Classical Greece.

Unfortunately, the book is a disappointment in terms of stating those conclusions, or providing a fuller elaboration of Crete’s debt to Egypt. But, whatever constraints caused MacGillivray to pull his punches here, *Minotaur* is, nonetheless, a useful, if academic, resource for documenting the extent to which the British establishment deployed to suppress a truthful history of the origins of Western civilization.

Evans’ fraudulent treatment of Minos parallels the much better-known fraud of British archaeology, that civilization was born in Mesopotamia, between the Tigris and Euphrates rivers, around 2700 B.C. In manufacturing this “discovery,” the oligarchy certainly chose a civilization in its own

image: Mesopotamia was a society dominated by an elite class of priests and administrators, who held their looted populations in cattle-like backwardness, subservient to an autocratic and irrational pantheon of gods, notably the mother-earth goddess Ishtar (or Isis, the “Whore of Babylon”). Central to their method of control, was the priesthood’s cloaking of its knowledge of the physical world in superstition, magic, and myth.

According to the oligarchy’s Disneyland of ancient history, such cult-ridden societies erupted, autochthonously, out of nowhere, ultimately leading to the development of civilization.

The enormity of this fraud—as well as Evans’ crimes, to which we will return later—becomes clear only when measured against the sweep of earlier millennia, during which man discovered and mapped the motions of the heavens. Contrary to the oligarchs, it is scientific man, discovering and exerting dominion over nature, which has moved civilization forward in all of history.

Antiquity of Scientific Civilization

For example, it was in a direct challenge to Britain’s imposed history of civilization, that India’s great scientist (and political leader), Bal Gangadhar Tilak, proved that India’s culture was far more ancient and advanced than the oligarchy’s Mesopotamia. In his 1893 *Orion, or Researches into the Antiquity of*

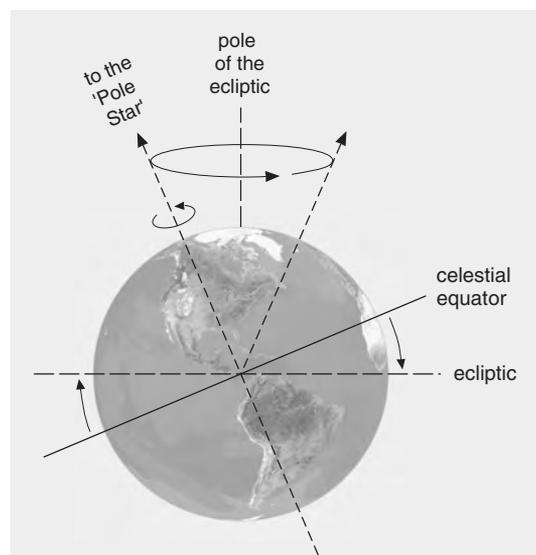
the Vedas, Tilak demonstrated that the description in the ancient Vedic hymns of the position of the constellation Orion at the vernal equinox, necessitated dating the composition of these hymns back to 4500 B.C. His 1903 *The Arctic Home in the Vedas* extended the time-frame back even further, to the period of the last Ice Age.

Tilak’s discovery that the Vedic hymns communicated ancient astronomical and calendrical knowledge metaphorically, has been seconded in recent decades in the demonstration that an advanced, astronomical culture predated Egypt’s Old Kingdom (2600-2250 B.C.), thus laying the basis for the emergence of the “Pyramid Age.” Most of the symbols which are associated with ancient Egyptian religion and mythology—the Scorpion king, the figures of bulls, rams, and lions (ie, the Sphinx)—have their cognates in well-known zodiacal constellations, such as Scorpius, Taurus, Aries, and Leo.

It is in this tradition that Edna Johnson Leigh put forward her hypothesis, that the *Iliad* and *Odyssey* of Homer, “represent an ancient people’s thoughts related to the science of astronomy and expressed in the form of elaborate narrative poetry.”

It is not clear that Leigh was acquainted with Tilak’s work. But she was raised in an early-Twentieth century American intellectual tradition—

FIGURE 1. *Precession of the equinoxes. The precession appears as a gradual shift in the apparent position of rising and setting stars on the horizon, as well as a shift in position of the celestial pole. This phenomenon arises because the Earth’s axis of rotation rotates (precesses) around an imaginary axis called the “pole of the ecliptic,” the direction perpendicular to the ecliptic plane (or plane of Earth’s orbit) on which the belt of zodiacal constellations is located.*



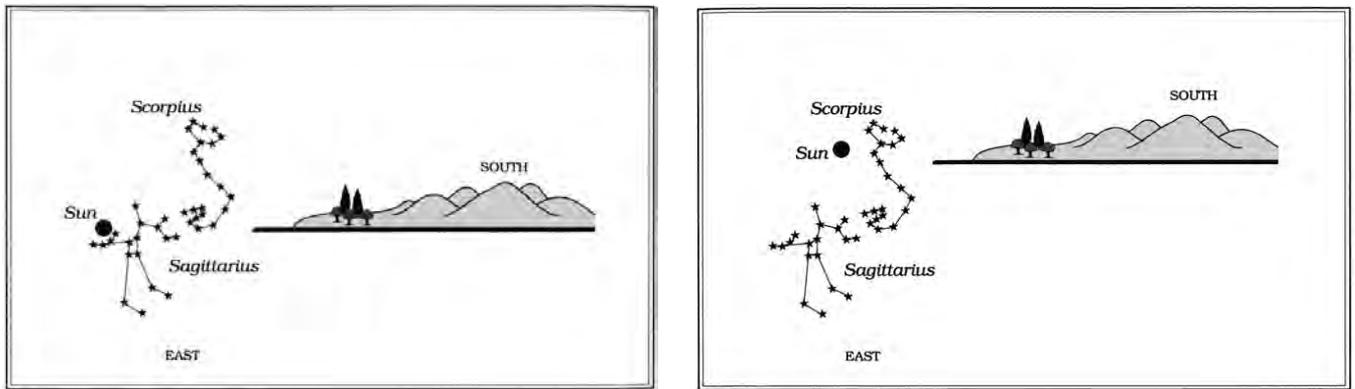


FIGURE 2. Shift of heliacal constellations as observed in different eras. (a) The sun rises in Sagittarius at the autumnal equinox, c. 6500 B.C. (b) The sun rises in Scorpius at the autumnal equinox, c. 4400 B.C. Illustrations from “Homer’s Secret Iliad.”

educated in the Greek Classics, John Keats, and classical music, and with a passion for astronomy, which had been kindled by fellow Kansan Clyde Tombaugh’s 1930 discovery of Pluto. While it is impossible to do justice to Leigh’s argument, and to the book’s articulation of it in this space, an introduction to her essential hypotheses should whet the reader’s appetite.

Astronomy and the Iliad

Leigh argues that the 45 regiments detailed in the *Iliad*’s famous “Catalogue of Ships” in Book II, represent 45 constellations. Part of the evidence derives from a poem, “Phaenomena,” written by Aratus in 270 B.C., in honor of the Fourth-century B.C. mathematician, Eudoxus, a collaborator of Plato. The poem identifies 45 constellations, but places them in a position appropriate to the skies of 3000-1800 B.C. Not only do the number of constellations in Aratus match the number of regiments in the *Iliad*, but Aratus’s poem is further evidence of poetry’s reach into the night skies of the past.

It follows from the comparison of regiments and constellations, that individual stars represent individual warriors, with the brightest star in each constellation representing one of the main characters: Achilles as Sirius in Canis Major; Odysseus as Arcturus in Bootes; red-haired Menelaus as the red giant Antares in Scorpius; Agamemnon (of Lion-gated Mycenae) as Regulus in Leo; and so forth. Some of the drama in the *Iliad* follows the nightly

motion of these constellations across the night sky.

But the real breakthrough is the identification in the *Iliad* of the changes in the night sky caused by the precession of the earth’s axis—a cycle of approximately 26,000 years, known as the “precession of the equinoxes” [SEE Figure 1].

The main changes caused by precession are: First, the shift in the heliacal constellations (the constellations which rise with the sun at equinox or solstice) [SEE Figure 2]; second, the emergence and disappearance of a particular band of stars, depending upon latitude; and, third, the change in the North Star, as the Earth’s axis traces out a circle, similar to the circle traced out by the axis of a wobbling top [Figure 1].

According to Leigh, Homer portrays the changeover in heliacal constellations, by the death or victory of the main warrior in the zodiacal constellation. Thus, for example, Menelaus of

Scorpius is attacked by Pandarus of Sagittarius; Menelaus lives and Pandarus dies, mirroring the change from Sagittarius to Scorpio, in the heliacal constellation on the autumnal equinox—a shift which took place around 4400 B.C. (The approximate date of Homer’s composition of the *Iliad* and *Odyssey* was c. 800-700 B.C.) The shift in the vernal heliacal constellation is recorded in the same way, as are the shifts which took place during the next change of heliacal constellations around 2200 B.C. [SEE Figure 3].

(In ancient cultures, it was common for the precession-caused disappearance of a constellation at equinox or solstice to be portrayed metaphorically by the death of an associated mythological figure; e.g., the death of Osiris in the Egyptian religion, was originally a description of the disappearance of Orion as a heliacal constellation, around 6700 B.C.)

Constellation	Date of entry	Duration
<i>Autumnal equinoxes</i>		
Capricornus (Peiros)	8000 BC	1,500 years
Sagittarius (Pandarus)	6500 BC	2,100 years
Scorpius (Menelaus)	4400 BC	2,600 years
<i>Vernal equinoxes</i>		
Cancer (Diores)	8000 BC	1,500 years
Gemini (Sarpedon)	6500 BC	2,100 years
Taurus (Idomeneus)	4400 BC	2,600 years

FIGURE 3. Chronological chart of heliacal constellations at equinox, presented metaphorically by Homer. Reprinted from “Homer’s Secret Iliad.”

Through such heliacal changes, Homer has taken us back to 4400 B.C. But it is the return of Achilles, as the star Sirius, to the battlefield, which moves the astronomical calendar back to 8700 B.C. Sirius, the brightest star in the Northern Hemisphere, disappeared from the skies above Greece around 15,000 B.C., owing to precession. Its appearance (or reappearance, if indeed such knowledge had been handed down from an earlier, Ice Age civilization) would have been dramatic. The authors argue convincingly, that the emphasis placed on Achilles' return to the battlefield, to which Homer devotes several books, represents this singular event.

One of the most elaborate descriptions in this section of the epic, is that of the smith-god Hephaestus creating a new shield for Achilles. It is here that Homer presents us with a direct astronomical image: "He wrought the Earth, the heavens, and the sea, the moon also at her full and the untiring sun, with all the signs that glorify the face of Heaven—the Pleiades, the Hyades, huge Orion, and the Bear, which men also call the Wain and which turns round forever in one place, facing Orion, and alone never dips into the stream Oceanus." These particular constellations mark the area of the night sky in which Sirius and its constellation, Canis Major, reappeared [SEE Figure 4].

Not New Age Kookery

Homer's Secret Iliad is rich in the elaboration of its hypotheses, such as its discussion of the gods and goddesses as planets, able to wander throughout the ecliptic band of the skies and, thus, influence the fate of the mortals, who are the fixed stars, and hence fixed in their actions. The book provides dozens of examples to bolster each of its arguments, which are extensive. Florence and Kenneth Wood spent years, following the death of Edna Leigh in 1991, working through her hypothesis, and fitting hundreds of examples into the architecture which Leigh had created.

In the introduction to the book, Ken-

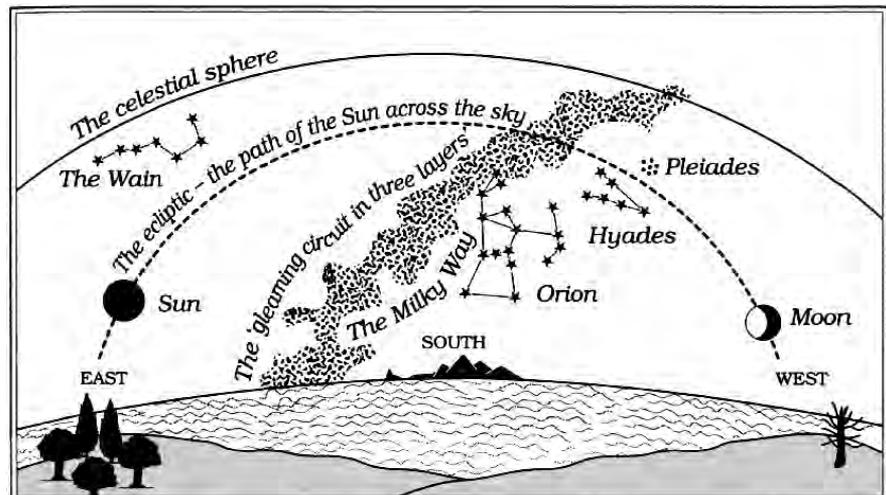


FIGURE 4. In describing how Hephaestus created the great shield of Achilles, Homer referred to the sun, the moon, the Milky Way, and the stars shown in the diagram. Illustration from "Homer's Secret Iliad."

eth Wood describes the cold reception accorded to himself and his wife, when they presented their analysis to establishment academia. Fortunately, they came in contact with serious scholars, such as Giorgio de Santillana and Hertha von Deschend, authors of the 1983 *Hamlet's Mill*, who are themselves investigating how the knowledge of precession shaped ancient civilizations; their studies have already pushed the calendar of civilization much farther back than the oligarchy would like.

Work of this sort is very different from the school of outright New Age kooks, who have many popular books currently in circulation, which present the evidence of ancient societies' knowledge of precession and astronomy, as magical, mysterious, or even coming from aliens from outer space. (One might call this the "Edgar Cayce" school of history, after the agent who claimed that his knowledge of the extreme antiquity of Egypt came from his ability to "channel" the knowledge directly from ancient Egyptians.) Instead, *Homer's Secret Iliad* joins the growing list of serious contributions in many disciplines piling up each year, which demonstrate that mankind has advanced, through his powers of cognition and discovery, throughout tens of millennia—rather than stumbling from one cultish civi-

lization to the next over the last 2,500 years.

British Racist Evans

Returning to *Minotaur* and the life of Sir Arthur Evans, we can see how the British oligarchy will stop at nothing to enforce that latter conception. If one approaches MacGillivray's thoroughness from such an overview of the intellectual battle afoot, then the book is a goldmine. Without that overview, the text becomes tediously academic.

Arthur Evans was born in 1851, to a middle-class businessman father who had been picked up by British Royal Society circles, and groomed as a promising lackey in the relatively new field of archaeology. The young Evans was raised on a diet of Darwin, Huxley, and Aryan racial superiority. As MacGillivray reports, "Evans came to Oxford just as the Aryans marched from myth into history, and he was as proud as any other to proclaim his connection to them." Evans' racism was unabashed; he wrote in 1875 that, "I believe in the existence of inferior races and would like to see them exterminated." He became the son-in-law of racist historian Edward Freeman, who once publicly expressed the wish that every Irishman would murder a Negro, and then be hanged, for the greater good of the Germanic race. (Evans' marriage to

Margaret Freeman, who shared the racist views of her father and new husband, was one of convenience, since Evans was a homosexual, whose sexual proclivities became public toward the end of his life.)

Evans just barely graduated from Oxford, thanks to the intervention of his father and Freeman. His first assignment was as an intelligence agent deployed under the government of Prime Minister William Gladstone. Not yet 20 years old, Evans was arrested by the French as a spy in Paris in 1870, during the Franco-Prussian war; then arrested by the Austrians in 1875 in Zagreb, during an insurrection against the Ottoman rulers; and finally arrested again in the Balkans in 1882.

Deployed vs. Schliemann

It was time to redeploy Evans, and his new assignment was to destroy the work of Heinrich Schliemann, and “replace” him as the preeminent archaeologist of Bronze Age Mediterranean cultures. Schliemann, a German businessman, was a lifelong lover of Homer’s epics, who became convinced that Troy and Mycenae were not fictional locations, but grounded in history. He devoted his life to proving this—discovering, and excavating, first, Troy, and then, Mycenae.

Evans was introduced to Schliemann in 1883 in Athens. In 1884, he was given the necessary credentials for his new career, and was appointed to head Oxford’s Ashmolean Museum. During this period, the British, through Oxford, were running an “inside/outside” operation against the influence of the Greek Classics in education. Benjamin Jowett, representing the “pro-Classical” side, was deployed to translate Plato’s dialogues, so as to beat the ideas out of them, and render Plato an ancient Newtonian. Jowett’s crime continues to this day, by the preponderance of his translations in modern editions.

Evans was groomed to cover the other side, attacking the “excess” reliance on the study of the Greek Classics, and, then, sabotaging the study of the origin of Greek culture.

That Schliemann was diverted from

travelling to Crete in 1883 and in 1885, in order to be honored by the British Royal Society and Queen Victoria herself, could not have been coincidental. Eventually travelling to Crete in 1886 and 1889, he was never able to obtain excavation rights, and died in Italy in 1890, on his way back to Greece and Crete. The possibility that his enemies orchestrated his demise should not be overlooked.

Evans arrived in Crete in 1893 and spent the next four decades creating a “Minoan” civilization in the image dictated by his, and his controllers’, perverted worldview. Evans’ assignment was to portray Crete as a mysterious, relatively advanced, autochthonous soci-



Sir Arthur Evans, at the excavation site at Knossos.

ety, which gave rise to “Minoan” (Mycenaean) civilization, and from it, Classical Greece. As MacGillivray demonstrated in the magazine article quoted above, Evans deliberately ignored, obscured, and even destroyed evidence that Crete and Mycenae were outposts of Egyptian colonization and science.

The ‘Minoan’ Myth

MacGillivray describes in detail how Evans simply rebuilt the palace at Knossos, and other structures, to conform to his preconceived fabrication of Minoan society. Even the term “Minoan” is

Evans’ creation; there is no evidence that the people of Crete ever called themselves “Minoan.” (Prior to his trashing of Cretan history, Evans had performed a similar intellectual fraud on Stonehenge, describing it as a cult center of a prehistoric Aryan belief system, rather than the advanced astronomical observatory which it was in c. 3000 B.C.)

Along with this, MacGillivray provides extensive documentation of Evans’ appropriation and manipulation of the work of some of his colleagues, and his outright destruction of the careers of others. Not only did Evans cripple the archaeological investigation of Cretan civilization, but he delayed for over fifty years a crucial breakthrough in the study of the early Greek language. Evans had discovered hundreds of baked clay tablets with a hitherto undiscovered form of writing on them, known as Linear B. In order to enforce the idea that Crete was an isolated, unknown culture, Evans insisted that the language could not be an early form of Greek. He refused to make the inscriptions available to others during his lifetime. It wasn’t until the 1950’s, a decade after Evans’ death, that Michael Ventris, a young British architect and cryptographer, proved to the astonishment of the world’s experts, that the language of the Linear B script was, indeed, an early form of Greek.

Evans’ life and work exemplify the British oligarchy’s method of holding back scientific advance. Through suppression of evidence—and, more importantly, through brutal imposition of ideological assumptions—Evans reigned as the High Priest of a scientific inquisition for more than fifty years.

Over recent decades, the discrediting of Evans, and of other elements of British-controlled archaeology, have broken that inquisitorial control, and scientists and amateurs, such as Edna Leigh, are now making valuable contributions to the discovery of mankind’s true pre-history. It is *that* history which the controllers of the Sir Arthur Evanses of this world fear the most.

—Susan Kojinda

America's Battle for the General Welfare

If history is a battleground for ideas, and ideas are embodied in individual personalities—both of which propositions I believe to be true—then historian Joseph J. Ellis made an appropriate choice in deciding to present this book on America's Revolutionary period through vignettes of the interactions between the early United States' leading personalities. For the most part, Ellis chose the most significant actors—John Adams, Aaron Burr, Ben Franklin, Alexander Hamilton, Thomas Jefferson, James Madison, and George Washington. The major omission, on the positive side, was Mathew Carey, the Irish emigré recruited by Benjamin Franklin, whose story would provide the direct bridge into the next generation of true American patriots.

The problem with this book, in my view, lies in the level on which Ellis presents the ideas which were at war over the first crucial decade of our republic's existence. As he states in the preface, Ellis sees the American Revolution as a paradoxical development, shown in the tension between the republican ideals it represented in its revolt against the British Empire, on the one side, and the centrifugal forces against a unified republic, which were to defend local sovereignty against the central government. This tension, he says, was resolved for a period during the Civil War, but not permanently.

The paradox would be resolved, if Ellis had presented the Idea of the American Revolution in its true historical and philosophical nature, as a political implementation of the ideas of the General Welfare developed out of the Italian Renaissance, and embodied in the more than 65-year career of Benjamin Franklin. It is true that no other of the "founding brothers" had an understanding of the Revolutionary idea on the same level as Franklin, a circumstance which set the stage for the battles that eventually nearly tore the nation apart. But Franklin's is the

standard against which all the other ideas and personalities should be judged.

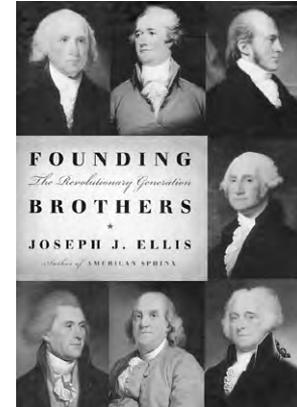
Ellis organizes his presentation around a series of six "turning point" events, four of which are indeed crucial to the subsequent history of the nation.

The Turning Points

The first turning point is "The Duel," an account of what went into the 1804 assassination of revolutionary hero and first Treasury Secretary Alexander Hamilton by Aaron Burr. This truly was a determining event, because it eliminated Hamilton, the genius who was continuing Franklin's fight to turn the United States into a great manufacturing republic, from the political scene. But Ellis's rendition is disturbing in its equivocation on Burr, who should be presented as the British traitor he was, but who appears instead as an arrogant genius with the same qualities as Hamilton.

The second vignette is called "The Dinner," and it depicts the fight over where the new nation's capital would be situated, and the negotiations between James Madison and Alexander Hamilton at a dinner party hosted by Jefferson, which would resolve the issue. The result of the 1790 negotiations, was that Madison agreed to Hamilton's plan for dealing with Revolutionary War debt, and the new national bank, while it was agreed that the nation's capital, at that point located in New York City, would be built up from scratch in a region adjacent to Virginia, now the District of Columbia.

The third, and most under-reported, issue taken up is called "The Silence," a review of the way slavery was dealt with in the Congress in 1790. Here we read about how petitions to end both the slave trade and slavery were introduced in 1790, including by Benjamin Franklin himself, and how they were dealt with. Ellis reports how the South's ultimate arguments in defense of slavery



**Founding Brothers:
The Revolutionary Generation**
by Joseph J. Ellis
New York, Alfred A. Knopf, 2000
288 pages, hardcover, \$26.00

were aired on this occasion, leading to a satirical response from Franklin, on the rights of Muslims to enslave Christians. The result, we learn, was the passage of a resolution saying Congress had no right to interfere with slavery *per se*—a resolution which was not resolutely challenged again until the 1830's, by John Quincy Adams.

The fourth vignette, entitled "The Farewell," presents George Washington's concept of holding the nation together around its mission as the world's leading republic, as found in his Farewell Addresses to Congress and the nation. Ellis correctly points out that Washington's vision of a Federal government promoting manufactures, agricultural improvements, a national university, an expanded navy, and a national military academy, was the precursor to the program of internal improvements by President John Quincy Adams, to be followed by Henry Clay and Abraham Lincoln. And he notes the tragedy involved in the fact, that other leading Virginians were aligned *against* Washington's perspective.

The last two vignettes are much more trivial, involving the ups and downs of the personal and political rela-

tionship between John Adams and Thomas Jefferson. Here the connection between the individuals and the historical process is much more muddled, with the result that the chapters are dominated more by personality than politics.

A Lost Sense of History

In a sense, this lowering of the level of discussion reflects what happened “objectively” in American history, as the intellectual descendants of Franklin and Washington were kept out of power for

the bulk of the first half of the Nineteenth century. This is where the question of the Carey family, starting with Mathew, comes in. Mathew Carey, with his publication of Hamilton’s work, and his own seminal *The Olive Branch* in 1819, provides the link which leads, along with the work of John Quincy Adams, Henry Clay, and others, into the second American Revolution accomplished by Abraham Lincoln.

It is surely a good thing that *Founding Brothers* made it onto the Bestseller List

for many weeks, and was awarded a Pulitzer Prize. For an American population which has so obviously lost its sense of historical identity, this is a positive sign. But, to get the true picture of what the American Revolution represents, one is still required to read the works of the LaRouche movement on that history—not to mention original sources of the leading individuals themselves. One hopes that reading this book will provoke more individuals to do just that.

—Nancy B. Spannaus

‘Great Projects’ of the Golden Renaissance

Political scientist Roger Masters has developed an obsession: He must uncover all he can about one of the most fascinating collaborations in all history—the working relationship and apparent friendship between Leonardo da Vinci (at the time, the greatest artist and scientist in the world) and Niccolo Machiavelli, then the world’s leading political theorist. For Masters’ readers, at least, this obsession is a very useful one.

This is Masters’ second crack at the subject. In 1996, he produced *Machiavelli, Leonardo, and the Science of Power*, a book that began with a competent, if unacceptably broad, sketch of the Leonardo-Machiavelli collaboration, but then suddenly careened into a bizarre, “politically correct” disquisition on the relationship of political science to sociology.

One likes to think that Masters realized that his first book had done injustice to the subject. For whatever reason, he has clearly spent the next three-plus years widely reading in this area. The result is a solidly researched synopsis of much of the best literature on both Leonardo and Machiavelli. In fact, one could easily recommend Masters’ new book to a reader who wanted a short, undemanding dual biography of the two geniuses.

The Arno River Project

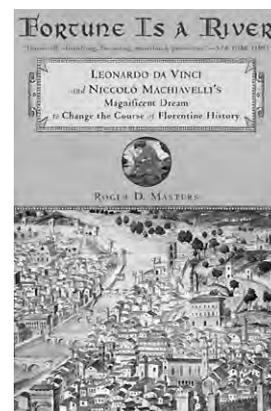
Masters pivots his study around Leonardo and Machiavelli’s plan to divert the course of the Arno, the river that con-

nects the great mercantile and manufacturing city of Florence to the Mediterranean Sea. Arno diversion was an old dream for Florence, for both economic and military-political reasons. In the 1440’s, a generation before Leonardo and Machiavelli, at the height of that flowering of human optimism which we would later call the Renaissance, people began to think that diversion was finally, technically possible, and the city’s best minds, including the genius architect Filippo Brunelleschi, began to plan in earnest.

Masters begins with an exciting proposition: “The history of public works that control rivers is . . . a good summary of the process of civilization.”

He then weaves an entertaining narrative that pieces together just about every scrap of what tragically little information we now know about the Arno project, starting with Leonardo’s early fascination with the river during his days at the court of Milan, and while training with the great geometer Luca Pacioli. This fascination fueled Leonardo’s map series of the Arno valley (whose uncanny detail and accuracy would satisfy a modern reconnaissance satellite interpreter), and also, as Masters rightly emphasizes, gave Leonardo the ability to include the famous “bird’s eye view” of an imaginary river valley in the background of the *Mona Lisa*.

Leonardo’s interest in Arno diversion was, thus, fully developed by the time he met Machiavelli, then the Secretary of the “Ten of War” (the top



**Fortune Is a River:
Leonardo da Vinci and
Niccolo Machiavelli's
Magnificent Dream
To Change the Course of
Florentine History**
by Roger D. Masters
New York, Plume Books, 1999
288 pages, paperback, \$12.95

diplomatic and intelligence post in the Florentine republic). On the face of it, as Masters amply documents, Machiavelli wanted Leonardo to divert the river for purely military reasons: to ensure the defeat of the neighboring city of Pisa, which also fronted the Arno. However, it seems clear, especially in the context of Machiavelli’s many later comments on the ability of man to use technology to correct the “deficiencies of nature,” that the politician shared the scientist’s understanding that river diversion (and concomitant irrigation and flood control schemes) could

transform the political economy of Northern Italy. Surprisingly, Masters, who is willing to speculate freely on other matters, bristles at contemplating Machiavelli's understanding of a "great project" that would surely contribute to his own long-held dream of uniting Italy politically and economically.

Discovery of America

To his credit, however, Masters concludes his discussion of the ultimately failed Arno project with a fine statement that betrays his actual appreciation of what Leonardo and Machiavelli were trying to accomplish: "In the Twentieth century, the Army Corps of Engineers built the Boulder Dam, the Tennessee Valley Authority, and other dams and river projects that transformed America, uniting engineering and technology with pure science and public policy. It is worth wondering if history would have changed had Leonardo and Niccolo succeeded in transforming Florence into a seaport and irrigating the Arno valley."

Indeed. But, Masters' general reticence to "wonder" precisely here, leads to the only real disappointment with his book. One cannot look at the idea of "great projects" spawned by the

Renaissance, without taking note of the greatest of all those projects: the exploration of the New World. Both Machiavelli and Leonardo (in ways upon which we can now only speculate) were involved in the great enterprise to refound European civilization across the Atlantic. Masters documents much of the relevant known information on this, but shies away from drawing out the implications.

For instance, he details the close relationship which both Leonardo and Machiavelli had to the Vespucci family. It was, of course, the explorer Amerigo Vespucci who would lend his name to our "American" hemisphere. Leonardo befriended Amerigo himself when they both studied with Paolo Toscanelli, the geographer whose maps would later be used by the Florentine emigré Columbus. At the same time, Machiavelli's personal assistant was Amerigo's cousin Agostino. When Machiavelli commissioned Leonardo to paint a mural commemorating the battle of Anghiari (never completed), he ordered Agostino Vespucci to provide a report on the battle for the artist's use; this report, in Agostino's handwriting, still exists in Leonardo's notebooks.

Masters would have done well to

investigate Machiavelli's deep and abiding attention to anything having to do with maritime trade and oceanic exploration. Also unexplored is Machiavelli's relationship to another famous Florentine family, the Dei, which is illustrative. The Dei were bankers with branch offices across Europe; Machiavelli used them as confidential informants for his intelligence network. The Dei branch in Spain provided the currency transfer through which Spanish Queen Isabella funded Cristoforo Colombo's voyage.

When Machiavelli was writing his masterwork, the *Discourses on the First Ten Books of Titus Livius*, he could think of no more appropriate metaphor than the voyages of Columbus, then echoing in the mind of every thinking European, as he opened the First Book of that work: "Although the envious nature of men, so prompt to blame and so slow to praise, makes the discovery and introduction of any new principles and systems as dangerous almost as the exploration of unknown seas and continents, yet, animated by that desire which impels me to do what may prove for the common benefit of all, I have resolved to open a new route."

—Michael J. Minnicino

An Awful Irony of the Twentieth Century

Martin Goldsmith, the host from 1989 to 1999 of "Performance Today," the daily classical music program broadcast on National Public Radio, has written a biography of his German-Jewish parents' life in Nazi Germany. *The Inextinguishable Symphony* details the history of his family, from the turn of the Nineteenth century, through his parents' chance meeting as young musicians in the symphony orchestra of the Frankfurt Kulturbund Deutsche Juden (Cultural Association of German Jews), to their eventual escape to the safety of the United States in 1938.

Goldsmith's book is a rivetting love story which, in addition, illustrates the impact of the Classical revolution of the great philosopher and Orthodox Jew Moses Mendelssohn and his collabora-

tor, poet/dramatist Gotthold Ephraim Lessing, in shaping the universal culture of the German nation. Unfortunately, it would appear that the author is unfamiliar with this history, to which leading elements of both Christian and Jewish society, including his own family, made significant contributions.

The 'Berlin Socrates'

Mendelssohn—who was known as the "Berlin Socrates"—and Lessing devoted themselves to shaping a new German society, using the ideas of Leibniz and Plato. They were supporters of the American Revolution, and their work in philosophy and the arts established the foundation upon which the great Classical German period of Goethe and Schiller followed.



The Inextinguishable Symphony:
A True Story of Music and Love in Nazi Germany
by Martin Goldsmith
New York, John Wiley, 2000
346 pages, hardcover, \$24.95

Mendelssohn's passion for the arts led him to the study of J.S. Bach through his teacher, Johann Philipp Kirnburger, one of Bach's most gifted and devoted pupils. His closest Jewish collaborators, the Itzig family, played a crucial role in performing Bach's works, and in making Bach available to serious students like Mozart. They financed Bach's two oldest sons, Carl Philipp Emanuel and Wilhelm Friedemann, and were supporters of both Mozart and Beethoven. This led to the ecumenical collaboration of Solomon Sulzer, the great cantor of Vienna, with no less a composer than Franz Schubert, in setting the liturgical year's synagogue music in the classical mode.¹

The musicians and music teachers in the author's family were of this tradition. The Jewish community had attained full citizenship in Germany only at the beginning of the Nineteenth century, through the efforts of Mendelssohn and Lessing a century earlier. Over this short period, however, they had made leading contributions to the development of Germany, and were politically active in republican causes. Thus, the process of the Nazi rise to power, and Hitler's commitment to exterminate the Jews, constituted in themselves an attack upon German Classical and republican culture. The author describes certain features of this, as seen through the eyes of his family.

Nazi Onslaught

Almost immediately after Hitler took power in January 1933, the Nazis removed leading Jewish classical musicians from their posts. The author's description of the humiliation, coercion, and threat of physical attacks forced upon Otto Klemperer, then chief conductor of the Berlin State Opera, and Bruno Walter, who had become a noted conductor with the Berlin City Opera and the Leipzig Gewandhaus Orchestra, are chilling. Both fled Germany.

Rudolf Serkin, who had been given the honor of performing both Brahms piano concertos with the Hamburg Philharmonic during that city's week-long music celebration of the hundredth anniversary of the birth of their native son, was removed from the program at

the personal request of Hitler, who had decided to attend the opening concert. This incident had a special impact on the author's father, who was then a 20-year-old music student, for it was a concert given by a "20-something" Serkin of Beethoven's "Emperor" piano concerto, heard by Goldsmith's father as a small child, which influenced him to become a classical musician.

The Jewish community fought back, as Goldsmith reports: "In the face of political, economic, legal and social exclusion from daily life, a few leaders of the Jewish community in Germany had decided that the most effective response would be a cultural one." During that summer of 1933, they created the Berlin Kulturbund Deutsche Juden, to perform theater, classical music, and opera. To counter the degradation, they would celebrate the gifts of Classical knowledge.

Nathan the Wise

The Kulturbund recruited a core of Jewish conductors, musicians, singers, and actors, many of whom were leading members of orchestras and theater troupes, from among the several thousand who had been dismissed from their positions by the April 1933 Nazi decree. No longer free to attend public concerts or theater, the Jewish community now had a sanctuary to which to flee from the Nazi madness.

The creators of the Kulturbund purposely set October 1, during the Jewish High Holy Days, as their opening night. They chose Lessing's *Nathan the Wise*, whose protagonist, the Jew Nathan, was widely recognized to be a portrait of Lessing's friend Mendelssohn. Kurt Baumann, the director of the Kulturbund, remembered: "There had never been a question which play it should be. There was only *one* work that was suited to depict our new situation."

This courageous political statement did not go unnoticed. Joseph Goebbels, under whose watchful eye the Kulturbund had been legally established, banned any further performances. But the Kulturbund became a rallying point for the Jewish community of Berlin, and 20,000 people joined immediately.

During its first three months, the association's output was amazing. They performed Mozart's *Marriage of Figaro*, staged Shakespeare's *Othello*, and played orchestral concerts which included works by Mozart, Haydn, Beethoven, Schubert, Pergolesi, and Chopin. There were string quartet evenings, piano recitals, violin recitals, choral concerts, two lectures, and other performances as well.

A True Love Story

It was in the Kulturbund's Frankfurt orchestra that the author's parents met in March 1936. The author's mother had taken violin lessons beginning at age three from her father, himself an orchestra concertmaster and founder of the Gumpert Conservatory of Music, one of Dusseldorf's premier academies. She won a position with the Kulturbund orchestra at the age of 18. The author's father was in the process of emigrating to the safety of Stockholm, when he was asked to stand in for the first flutist for two performances. When the position became open permanently, he returned to the orchestra, and to his 19-year-old sweetheart.

Goldsmith vividly describes his parents' excitement for the exceptional Kulturbund, and their passion for playing classical music, as well as their young love and commitment to one another, all of which kept them vibrantly alive despite the horrors surrounding them. They spent two years with the Frankfurt and Berlin Kulturbund orchestras, before emigrating to the United States, where Goldsmith's mother performed with the St. Louis Orchestra and the Cleveland Symphony for 35 years.

On his radio program, Martin Goldsmith was known to feature exceptional recordings that reflected his parents' era. It is one of the ironies of the awful history of the Twentieth century, that a Martin Goldsmith, whose love and appreciation of music was nurtured in the cradle of the German Classical renaissance, would find himself transmitting that tradition to an audience of lucky American listeners.

—Steven P. Meyer

1. See my "Moses Mendelssohn and the Bach Tradition," *Fidelio*, Summer 1999 (Vol. VIII, No. 2).

The Magic of the Sublime

In the painting, “The Artist in His Studio” (c. 1629), we see a bare room, except for the very young artist—Rembrandt was about 23 when it was painted—who holds his brush and a few other objects, as he looks at a large canvas on an easel across the room. The light falls along the edge of the canvas, and on the painter’s face. The subject of the painting is *cognition*. “This is just a bare workplace with a painter who is not working, but looking—or thinking. But *thinking* may be the very key to the meaning of this painting,” observes author Ernst van de Wetering.

In fact, one of the things scientific analysis of the physical properties of Rembrandt’s paintings shows, as elaborated in this fascinating book, is that Rembrandt did not make preliminary drawings; rather, he only made drawings *when he was in the process of changing the composition of the painting, in order to try out a new solution*.

In other words, Rembrandt thoroughly-composed the work *in his mind*, before he ever put pen to paper, or paint to canvas, in such a way that the

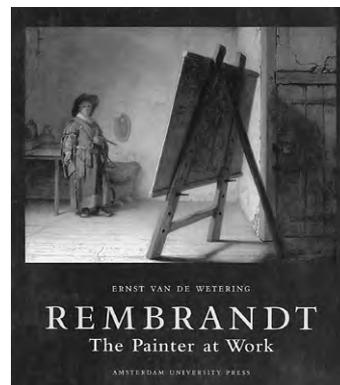
concept was carried throughout the entire composition.

Art of the Sublime

The genius of Rembrandt van Rijn (1606-69) is universally acknowledged, yet, among today’s culturally and scientifically clueless, the method by which he produced his masterpieces, is viewed by many as magical. Even during Rembrandt’s lifetime, rumors circulated that he was secretive about his method of working. One contemporary wrote: “There is . . . no way to figure out how he did it; consequently this invention . . . was carried with its inventor to the grave.”

In 1854, the German art critic Eduard Kolloff wrote of Rembrandt’s late paintings: “Very meticulous connoisseurs . . . are disconcerted by his manner of painting and find themselves at a loss: unable to discover how his pictures are made, they can do no better than declare that the hermetically sealed facture of his paintings is sorcery, and that even the painter himself had no clear understanding of how it was done.”

As late as 1876, the French painter



**Rembrandt:
The Painter at Work**
by Ernst van de Wetering
Amsterdam, Amsterdam
University Press, 2000
340 pages, paperback, \$35.00

Eugène Fromentin wrote: “As to his technique, Rembrandt painted, sketched, and etched like no one else. His works in themselves were a mystery. People admired him with a certain uneasiness; he was followed [by his contemporaries] without being fully understood. His work was regarded rather as that of an alchemist.”

But in *Rembrandt: The Painter at Work*, Ernst van de Wetering swings open a door into Rembrandt’s studio, which permits us to look over the shoulder of the greatest of the Seventeenth-century Dutch Masters, so that we may watch as he painted, to see just how he produced his “magical” works. The past 150 years or so have provided many new techniques for analyzing the physical and topographical aspects of a work of art, and van de Wetering explores these for us with admirable thoroughness. Even so, after all the spectroscopy, radiography, chemical analysis, and whatnot, there is still nothing in those materials which can account for the ineffable quality of that human mind which transformed those physical materials into the art of the sublime.

In an insightful comparison of two seemingly similar works, both painted in the mid-1630’s, one by Rembrandt, the other by Nicolaes Elias (known as Pickenoy), van de Wetering identifies what defines Rembrandt’s genius. Each is a portrait of a Dutch burgher’s wife;



Rembrandt van Rijn, “The Artist in His Studio,” c. 1629.



Reprinted from Rembrandt: The Painter at Work



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Above left: Rembrandt van Rijn, "Portrait of Haesje van Cleyburg," 163(4). **Above right:** Nicolaes Elias (called Pickenoy), "Portrait of an Unknown Woman," c. 1635. **Details:** Rembrandt (below left), Pickenoy (below right).



Reprinted from Rembrandt: The Painter at Work



Reprinted from Rembrandt: The Painter at Work

each is seen in a three-quarter view; each wears a white cap, and a large white pleated ruff around her neck. At first glance, it is difficult to discern any important differences; both portraits seem exceptionally well done. Van de Wetering writes: "Where Pickenoy pays close attention to each detail, modelling clearly and sharply (and at first sight more convincingly), Rembrandt uses the brush more loosely and fleetingly, and avoids sharpness in his contours and inner drawing. One only has to look at the catchlights in the eye, and the errant gleams on the slightly greasy skin under the eye and on the lower lip to see how, notwithstanding the formulaic use of illusionistic devices, the emphasis in his work is on the casualness, the almost chance nature of such effects. Alongside

the monumentally moulded, frozen forms of Pickenoy, Rembrandt's figure appears to be alive. *It is as if she is on the very point of changing her expression, or of blinking.*" [emphasis added]

This quality of ambiguity of expression, is precisely that which defines a Classical work of art. Think of the sculpture of Phidias or Praxiteles; think of the smile of the *Mona Lisa*: This is the motion of the mind, the in-betweenness of cognitive transformation given physical expression.

The Self-Portraits

Anyone who has ever experienced the thrill of viewing a late Rembrandt self-portrait (such as that in the National Gallery of Art in Washington, D.C., painted 1659), has encountered the eerie

and powerful sense that the artist has come alive, and is speaking directly to him.

Van de Wetering reveals a small part of what makes these autobiographical paintings so extraordinarily powerful: "In one of his very last self-portraits . . . executed in 1669 [the year of his death—BJ] and now in London, a comparison of the picture with its radiograph reveals [that] more and more of the elements that would catch the lights and draw the eye were painted out, toned down or altered, in order to bring out the 'force' of just one part of the painting—in this case, the face with the steady gaze."

In fact, what Rembrandt has done is revolutionary: Van de Wetering describes his use of impasto (building up the paint to create a topography, or relief) to reflect light and cast shadow, a revolutionary method for creating what

the Italians called "*chiaroscuro*," the interplay of light and shadow to create depth. Furthermore, the "*sfumato*" (smoky quality or blurring of outlines) technique invented by Leonardo da Vinci to create the effect of atmosphere, or what he called aerial perspective, becomes with Rembrandt what van de Wetering calls, "rough *sfumato*." "Rembrandt evolved

that peculiar, rough *sfumato*, which is effected by dragging a brush loaded with stiff paint over the surface to produce a rough ('perceptible') but still evocative contour or tonal transition, which plays an essential part in the spatial and atmospheric effect of the paintings."

While van de Wetering provides a depth of technical information (which some might find daunting), his discussion of the techniques used to produce some of the most beloved of Rembrandt's works, accompanied by many beautiful reproductions and details, will captivate even the most casual reader. For anyone struggling to understand the history of art, or better yet, for those who wish to follow in Rembrandt's footsteps as artists, this book is indispensable.

—Bonnie James

In a good education, the child's mind begins to look like the famous mural in the Vatican of Raphael, 'The School of Athens.' The people in the painting come from different times, but they are all in a great discussion, in the same painting. Isn't that the mind of the well-educated person? That people from a vast expanse of known history, who are discoverers, have an immediate personal relationship inside the mind of the student?

—LYNDON H. LAROCHE, JR.
Address to Polish educators, May 24, 2001

Discoverers.

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'To speak and walk in the paths of truth...'



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Thirty-three years ago, Robert Kennedy, a candidate for President and the brother of the assassinated John Kennedy, informed a shocked audience in Ohio that Martin Luther King had been assassinated. On that occasion he quoted from memory a passage from the Greek poet Aeschylus: "Even in our sleep, the pain that will not forget falls drop by drop upon the heart until at last, against our will, comes wisdom through the awful grace of God." Two months later, Robert Kennedy was also assassinated.

From 1968 until now, the fight for the General Welfare of all the people of the United States, and all the people of the world, has been buried by the inaction of those of us who have allowed the small and venal men and women of our time to convince us that the individual citizen is no longer sovereign. Now, in Washington, a resurrection of that sacred fight for the General Welfare of all the people promises to reawaken the living dead of our cities and of our society to that mission. The D.C. General fight is a war against a disease far more debilitating and deadly than any physical malady. It is the epidemic of pessimism that has raged and reigned since 1968, which can be eradicated by this action. On March 31, 1968, Dr. King, speaking to an audience at the Washington National Cathedral, drew out the universal implications for

America of his, and the nation's fight for the General Welfare:

"Ultimately a great nation is a compassionate nation. America has not met its obligation and its responsibilities to the poor.

"One day we will have to stand before the God of history and we will talk in terms of things we've done. Yes, we will be able to say we built gargantuan bridges to span the seas, we built gigantic buildings to kiss the skies. . . . We brought into being many other things with our scientific and technological power.

"It seems I can hear the God of history saying, 'That was not enough! But I was hungry, and ye fed me not. I was naked and ye clothed me not. I was devoid of a sanitary house to live in, and ye provided no shelter for me, and consequently, you cannot enter the kingdom of greatness. If ye do it unto the least of these, my brethren, ye do it unto me.' That's the question facing America today."

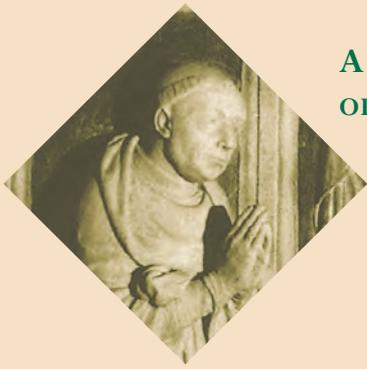
The case of D.C. General Hospital illustrates precisely the global implications of winning that battle in the nation's capital. What if, instead of the proposal to shut the hospital, we proceeded to save it, build a new hospital immediately adjacent to it and established, instead of condominiums, a university dedicated to developing a national and international cadre of infrastructure builders and

nation builders? Suppose that university was a public institution that gave preferential enrollment to the citizens of D.C.?

The countries of Asia, South and Central America, and Africa, not only require, but would be happy to accept American engineers, physicists, scientists, language teachers, and would also, if asked, provide teachers and assistant personnel to explain the most advanced research and development technologies required to build great railroads across Asia and Africa, power and water systems, and national public health-care systems for the globe. The university students would pay part of their tuitions by teaching for two years in high schools throughout the U.S. and the globe. Priority would be given to deploying these young people into the poorest areas, in conjunction with infrastructure projects.

This is not a "Peace Corps" proposal. It is a proposal to teach and to reproduce the most advanced inventions in science and technology, and to create machine tools that can give these technologies to these nations and to the poorest parts of our own nation. The university should be named "The Frederick Douglass Institute of Higher Learning," in honor of D.C.'s most positive role model for the self-transformation and high intellectual standard required of all the students and teachers therein employed. . . .

The Rev. Willy Wilson often speaks about two forms of time, time as Chronos, and time as Kairos. Sometimes in history, people find themselves capable of winning victories that create what we will call a simultaneity of historical time. In these moments, words such as those from the lips of Dr. King will sound for the living with as much energy and clarity as they did at the time they were first spoken. The intervening years melt away. The dead rise again to speak and even to walk in the form of people that they have never met. True ideas and truth are eternal, and there are times when a transparency occurs in history which allows each individual, acting as a citizen, to speak and walk in the paths of that truth. That, and nothing less, is the meaning of winning the battle of D.C. General.



A SYMPOSIUM ON THE 600TH ANNIVERSARY OF THE BIRTH OF CARDINAL NICOLAUS OF CUSA

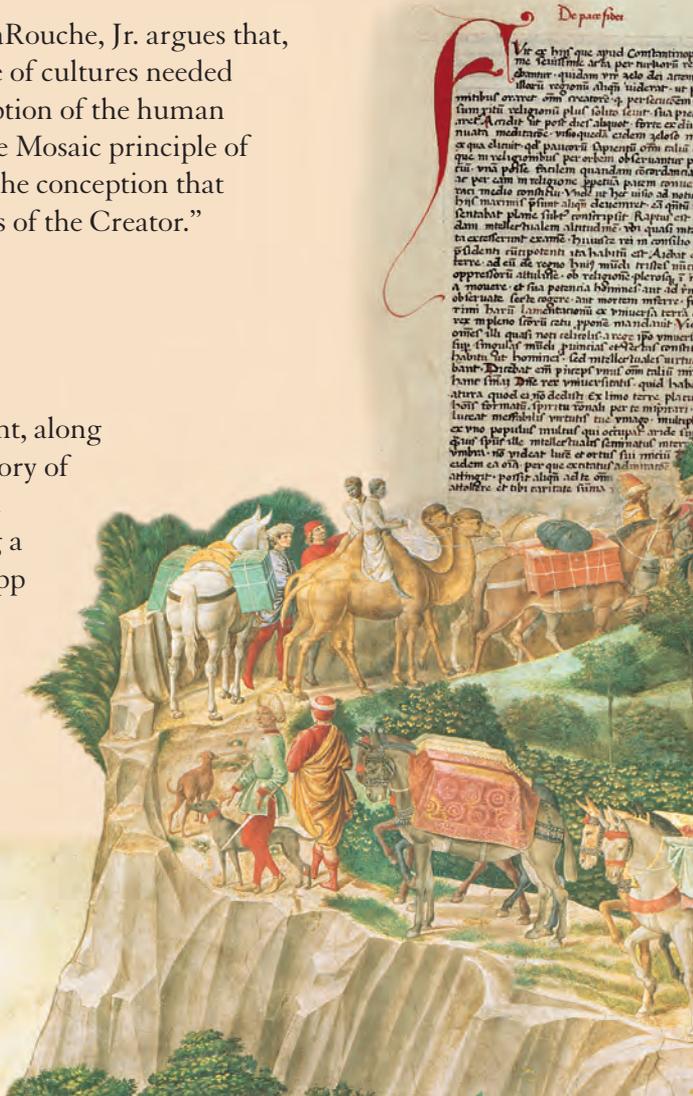
❖ Dialogue Among Cultures: The Road To Peace

Speaking in Sudan, Lyndon H. LaRouche, Jr. argues that, “The core of the strategic dialogue of cultures needed today, is to be found in that conception of the human individual which is common to the Mosaic principle of Judaism, Christianity, and Islam: the conception that each person is made in the likeness of the Creator.”

❖ Nicolaus of Cusa, Towering Genius Of the Renaissance

Cardinal Nicolaus of Cusa’s concept of political self-government, along with his Platonist philosophical method, brought about the victory of the modern nation-state over previous forms of oligarchic rule. Cusa charted a course of European development incorporating a vision of ecumenical peace extended to all mankind. Helga Zepp LaRouche’s address is accompanied by studies of Cusa’s discoveries in geometry, and their impact on the astrophysics of Johannes Kepler. Cusa’s theological meditation, “On Searching for God,” rounds out the symposium.

Manuscripts: *On the Peace of Faith* (top), *Learned Ignorance* (right). Detail: *The Journey of the Magi*, Benozzo Gozzoli, 1459.



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Carlo Rosegg

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