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## Conference Report

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# Leonardo da Vinci's scientific genius is rescued from Windsor Castle

by Nora Hamerman, Editor

Nineteen eighty-two marks the five hundredth anniversary of the arrival of Leonardo da Vinci in Milan. He came there from Florence, the celebrated birthplace of the Platonic Renaissance in Central Italy. Milan, situated in the fertile Po valley at the crossroads between Italy, France, Switzerland and Germany, was a strategic capital which already evidenced the agricultural and engineering advances that have made it the industrial capital of modern Italy. The anniversary of the coming to Milan of Leonardo, the greatest artist and scientist of the late fifteenth century, otherwise so filled with men of genius, marked the moment when the Renaissance was no longer a local phenomenon of Florence but became a national cultural movement, capable potentially of forging the principalities of the Italian peninsula into a unified nation.

Not accidentally, Leonardo was the first artist to directly express in his painting and drawings the principle of self-transformation which first became empirically evident with the advent of industrial society. Not accidentally, he was the discoverer of the modern science of hydrodynamics. Not accidentally, he was the first to reconceptualize the science of perspective, which had been the great discovery of the Florentine Renaissance painters, from the "linear" Euclidean conception to a spherical perspective capable of representing in the visual world the higher ordering principle of the real physical world. Not accidentally, he was the author of a series of fearsome military engineering advances, both offensive and defensive, described in his famous letter of "job application" to the Duke of Milan in 1482.

Leonardo can only be understood as a great Italian patriot, who side by side with his collaborator Machiavelli struggled to create an Italian nation-state against the resistance of the powerful feudal oligarchy, particularly the oligarchy which had its stronghold in the so-called Republic of Venice. His broader purpose was to bring about that kind of industrial society which would fulfill the Florentine Platonic vision of liberating mankind from bestial labor, harnessing new forms of energy and applying machines to do the work of man.

It is also not an accident that today, at a moment when

the Venetian oligarchy and its junior partners centered around the British monarchy have openly set out to bring back the Dark Ages and the destruction of everything the Renaissance stood for, the "official" image of Leonardo da Vinci has been subjected to an aggressive assault.

A committee set up by the Milan city government has sponsored a series of exhibitions, concerts, conferences and other events to celebrate Leonardo's arrival in the Lombard capital. The official thrust of the Milanese celebration has been what Italians call "ridimensionamento" That means in English, "cutting down to size." The striking exceptions to this line were an exhibit titled "Leonardo da Vinci as Engineer," at the Leonardo da Vinci National Museum of Science and Technology of Milan, and the symposium held at the museum on Dec. 1-3, 1982 under the title, "The Contribution of Leonardo da Vinci to the Birth of Modern Industrial Society," organized by Italy's Humanist Academy and co-sponsored by the museum.

The official "Leonardo in Milan" committee failed to invite the most obvious audience—students—to its October 1982 "scholarly" conference on Leonardo at the Castello Sforzesco, where the "ridimensionamento" was carried forward with a vengeance. The idea that dominated that meeting is that Leonardo da Vinci was "not a real scientist, but merely had great intuitive powers." "Science" for these scholarly gentlemen, dominated by the presence of British "Vincian" authorities, is rather the reductionist systems of Sir Francis Bacon, Galileo and Isaac Newton. Leonardo da Vinci, who somehow magically anticipated dozens of discoveries of 18th, 19th and 20th century science, was for them no scientist, but a neurotic fluke.

Most enlightening in regard to this line on Leonardo was a color supplement in the weekly magazine *Europeo* that appeared two months ago. The biographical text penned by Carlo Pedretti, the reigning authority on Vincian manuscripts who has a professorial chair at UCLA, is eighty percent devoted to an attempt to prove that Leonardo da Vinci was a homosexual. The remaining twenty percent touches upon the

actual accomplishments of Leonardo. Included among the illustrations is a previously unpublished magnificent anatomical drawing by Leonardo in the possession of an East German museum. *Pedretti reports that only the personal intervention of the Queen of England, who happens to be the owner of all of the rest of Leonardo's anatomical studies, persuaded the East Germans to release the drawing for publication.*

It is a telling glimpse behind the scenes of the plot against Leonardo da Vinci today. Since at least the middle of the 19th century the British oligarchy, represented by such "art critics" as the notorious sexual degenerate John Ruskin, has been in overt warfare against the heritage of the Italian Renaissance. Yet, the largest collection of Leonardo's drawings is at Windsor Castle, the private property of the Queen of England. Another treasured Leonardo scientific manuscript, the Codex Leicester, recently passed from the hands of Lord Leicester to Armand Hammer, the notorious crony of the Soviet and Libyan leadership in the American financial community. In short, official studies of Leonardo da Vinci today are dominated by the same British Royal family's circle of homosexual spies as the recently exposed KGB spy Sir Anthony Blunt, for years the Curator of the Queen's pictures.

All of this helps to explain the reaction which exploded when the Humanist Academy invited the public schools of Milan to send secondary school students to a symposium where it was asserted—and conclusively demonstrated—that Leonardo da Vinci was a great scientist, including a military scientist engaged in the defense of his city-state and the emerging nation.

### **Leonardo and beam weapons**

The controversy, which occupied all press and media accounts of the event, centered around the assertion of the first panelist on Dec. 2, Fiorella Operto, that Leonardo da Vinci, if he were alive today, would be working to develop space-based relativistic beam weapons as proposed by Lyndon LaRouche. In the debate which ensued, one student went to the center of the problem which the Humanist Academy is posing: Is the Renaissance idea of scientific progress the path which must be recovered by humanity today, or rather—as the entire Italian "official" press, the majority of the so-called left, and large numbers of high school teachers maintain—should we not reject progress in favor of "quality of life"?

By demanding that the West develop beam weapons as the only way to end the age of thermonuclear terror, Operto was insisting that youth today must embrace Leonardo's own methodology of continuous scientific breakthroughs as the answer to the crisis. A number of students went through a process of re-thinking their "ecological" assumptions in the course of the symposium, and the issue of beam weapons was forced into the open in Italy in half a dozen newspaper articles. A television broadcast reporting on the symposium reached an estimated 1 million viewers in the Milan area.

The Humanist Academy organized its symposium on the

model of its dramatically successful three-day meeting, "Teaching Dante Today," held exactly one year earlier in Rome. An inaugural meeting was held on the first evening, in the sumptuous 16th century "Sala del Cenacolo" of the Museum, where Humanist Academy president Muriel Mirak laid out "The Significance of Leonardo for Science Today" for press and invited guests. On hand to deliver greetings were the museum's president Dr. Francesco Ogliari and director, Dr. Pasquale Romano, as well as Dr. Venturi representing the Superintendent of Schools who had sent a circular letter to the secondary school teachers inviting them to attend the conference with their classes.

On Dec. 2 and 3, the working sessions of the conference included three panels: The Political Significance of Leonardo's Activity, Leonardo and Art, and Leonardo and Science. Concluding the symposium on the afternoon of Dec. 3, a roundtable was dedicated to Leonardo and the Challenge of the Year 2000: The Great Development Projects.

Although the presentations were all geared to a student audience, they were nonetheless highly challenging and represented in totality a sharp contrast to the "ridimensionamento" of official events. Distinguished speakers from Italy itself included, besides Dr. Mirak, Fiorella Operto, the secretary-general of the European Labor Party; Cristina Fiocchi and Antonio Gaspari, respectively, the president and vice president of the Anti-Drug Coalition in Italy; Dr. Carlo Bertelli, director of the world-famous Brera Gallery in Milan; Mons. Luciano Migliavacca, the director of the Cathedral Choir of Milan Cathedral, who spoke on "Music in Milan in the Time of Leonardo da Vinci"; Giuseppe Filippini, director of Italy's Fusion Energy Foundation; and Prof. Marcello Fontanesi, head of the plasma physics program at Milan State University. From abroad came Dino De Paoli, an Italian scholar residing in France who has published a book on the French Ecole Polytechnique; Webster Tarpley, European representative of the National Democratic Policy Committee, based in Germany; and this writer and art historian Dr. D. Stephen Pepper, representing the U.S.-based Lafayette Foundation for the Arts and Sciences.

The over 1,000 students who attended the first full day's session Dec. 2 and the 600 who came on Dec. 3 must have been quite stunned when they read in the daily newspaper *Corriere della Sera* on Dec. 4 that the conference did not discuss the work of Leonardo da Vinci and that only a few tens showed up on Dec. 3 for the continuation of the symposium! In fact, as *EIR* investigators determined in the days immediately following the event, the author of these lying reports, one A. Pozzoli, had been from the beginning part of an attempt to sabotage the symposium. Pozzoli went so far as to call conference participants and ask them if "they knew the Humanist Academy was paid by the CIA," in a clear attempt at intimidation. In a telephone call to Mrs. Operto Dec. 4, Pozzoli delivered a mafioso style threat, asking her if she went around without a bodyguard and if she did not know that imprisoned Red Brigades members turned state's

evidence had been killed for less than what she was doing.

Operto announced in a press conference that she was bringing criminal charges against Pozzoli and noted that his actions were not unconnected to an attack, planted by the KGB in a Soviet journal, against beam weapons advocate Edward Teller. Operto said that the same KGB-British faction in the Soviet Union that wants to suppress the beam weapons debate in the West has been exposed recently as implicated in the "Bulgarian connection" to the illegal drugs, weapons running, and terrorism network accused of having attempted to kill Pope John Paul II.

### Can science be revived?

The gauntlet to the anti-science cabal and its oligarchical controllers was thrown down in the inaugural session of the conference Wednesday evening, Dec. 1 by Muriel Mirak, the president of the Humanist Academy, an American-born scholar and collaborator of Lyndon LaRouche. Mirak, without "letting any fur grow on her tongue," (as the Italian expression for not mincing words has it), took on frontally the condition of science in a world where the Nobel Prize in Physics, Biology and Economics is consistently awarded to the kind of Nazi genocidalists who 35 years ago were hanged at Nuremberg for crimes against humanity. She cited this year's award in biology to the inventor of an abortion pill especially designed to reduce population in the Third World. As for economics, the prize has gone to babbling idiots like Paul Samuelson and outright mass-murderers like Milton Friedman. Lyndon LaRouche, the only economist whose projections of the world economy have been consistently accurate, and whose program for economic recovery therefore has unique authority, has said he would be deeply offended if the Nobel Prize were ever offered to him, Mirak reported. She concluded that to rebuild our dying civilization at this moment of extreme crisis, we must recover the soaring scientific accomplishments of Leonardo da Vinci—rejecting the bad-faith efforts at "ridimensionamento."

The following day, as the first panel of the conference dedicated to Leonardo and Politics opened in the museum's movie auditorium, over a thousand students, well beyond the seating capacity of the hall, were packed into the room. Nearly as many more had been turned away at the door. The bold assertion of the conference organizers that Leonardo da Vinci has enormous relevance for today stirred up anticipation among the youth, mostly in the age range of 15 to 18.

The first speaker Fiorella Operto asserted that the scientific morality of Leonardo da Vinci is exemplified today by the development of relativistic beam weapons as the only technology capable of ending the terror of nuclear war. Operto explained that Lyndon LaRouche had first circulated a pamphlet on the beam weapons initiative earlier this year. In late September, she reported, the famous physicist Edward Teller in a Washington speech had endorsed the new space-based defensive weapons using arguments parallel to those of LaRouche.

Operto compared the "Manhattan Project" by which the

Allies in World War II had developed the atomic bomb as a defense against the Nazis, to the great project of building the dome of Florence Cathedral under architect-engineer Filippo Brunelleschi, one of the spiritual fathers of Leonardo da Vinci. Just as thousands of critical technological advances were reaped from the Manhattan Project, including fission and fusion energy for peaceful purposes, long after Brunelleschi's death the project of completing the dome was the training laboratory for younger Florentine scientists and artists including Leonardo himself, she said.

In the concluding part of her speech Operto detailed the city-building projects of Leonardo da Vinci during his stay in Milan, projects for modern cities which included plans for sanitation and manufacturing centers. The impetus for the projects came after the plague swept through Milan in the late 1480s, not long after his arrival there, and carried off approximately one third of the inhabitants.

Leonardo did not limit himself to conceptualizing a modern city, but sought to bring an end to the usurious real-estate practices of the oligarchy which owned practically all the buildings in the city, Operto reported.

In the second presentation, Antonio Gaspari of the Humanist Academy quoted extensively from Leonardo da Vinci's writings, particularly on political and military subjects, showing that he tried to convince rulers such as the Duke of Milan that only through economic development could they ensure their continuing rule. Gaspari showed slides of Leonardo's military engineering projects, including anticipations of the cannons and gatling guns used first in the American Civil War, and Leonardo's famous project for a tank. All of these projects are on display in blown-up photographs of the drawings and models of many of the machines as a major part of the National Science Museum's excellent exhibit on "Leonardo as an Engineer," which also includes sections on Leonardo's hydraulic engineering, industrial machines, and studies of flight. Gaspari stressed Leonardo's commitment, along with Machiavelli, to the nurturing of a republican army capable of defending the state. It was at this point that the hysteria against Leonardo da Vinci broke out.

Led by a leftist teacher, Pina Sardella, who belongs to the PDUP party, recently exposed as being financed by the Bulgarians, a group of rowdy students tried to storm the podium and demanded immediate "debate." The majority of the audience agreed with the chairman of the conference, Marco Fanini, that the debate should occur as scheduled at 12 noon, after all three presentations. Sardella and her students, who exhibited clear symptoms of brainwashing, charged that the organizers of the symposium were "warmongers" and announced that they would demand an investigation.

The controversy reached its final absurdity when Pozzoli reported two days later in *Corriere della Sera* that an "investigation" was underway to determine whether symposium participants had departed from their announced topics. Were this a crime, as one wit observed, half the professors and all of the politicians in Italy would currently be rotting in jail!

The special merit of this symposium is that, in a way fully coherent with the great Leonardo da Vinci's own personality, the speakers brought an "outside" perspective to the specialized topics they addressed. It would be difficult to overestimate the respect which Fiorella Operto commands here as a political leader who is deeply committed to the survival of her nation, and who has mastered as her own the conceptions of the American economist and scientist Lyndon LaRouche, the inspirer of the Humanist Academy. When, during the tumultuous debate that ended the first panel, Operto detailed the importance of beam weapons to dispel the threat of nuclear war, even though a vocal minority wanted to brand the speaker as a "warmonger", there were five minutes of rapt silence in the room. One could sense the power of reason cutting through the irrationality of the left-wing Inquisition that wanted to block out the debate.

The next morning's panel on Leonardo and Science had a similar impact. Muriel Mirak, who organized last year's Dante Symposium in Rome and is known internationally as one of today's leading Dante scholars, is also the European coordinator of the Anti-Drug Coalitions. The more than 600 adolescents sat spellbound as she took them through the geometric constructions of the five "Platonic" solids as described by Plato and then developed in the works of Leonardo's close collaborator, Luca Pacioli. Immediately following her speech Dino De Paoli denounced the present-day "Vinciani," quoting from Leonardo's own scalding remarks about academic pedants and showing the famous drawing of Five Grotesque Heads which matches the Leonardesque barb. The students broke out into delighted laughter.

De Paoli brings to this study his in-depth work on the Ecole Polytechnique, which generated the great achievements of German nineteenth century physics. Recently, De Paoli discovered that the first publication of Leonardo's scientific manuscripts took place at the end of the 1790s in Paris under the orders of Ecole Polytechnique founder Carnot—a man who, like Leonardo, used innovation in military technology to transform society as a whole.

"It is not possible to understand Leonardo's science if one maintains that science consists only of mathematical formulae and has nothing to do with morality. Science has as its task the development of the universe. If this is not understood today," De Paoli asserted, "it is because there are too many sociologists and psychologists and too few physicists and engineers."

De Paoli showed that Leonardo's studies are in the vanguard of present day areas of physical research. Leonardo understood that the characteristic of the transmission of motion and energy was undulatory. But he also understood that the distribution of velocity inside sound and light waves was not homogeneous, that there exist actual qualitative jumps which give rise to singularities. This is what in the nineteenth century was called the phenomenon of shock waves. Leonardo studies this phenomenon in fluids. His studies were what led to Riemann, through the French Ecole Polytechnique, and today represent the line of the most advanced research.

The next speaker, Giuseppe Filipponi of the Fusion Energy Foundation, confronted one of the "sacred cows" of Italian academia, the notion that Galileo Galilei and not Leonardo was the founder of modern science. Filipponi demonstrated how the various "discoveries" of Galileo Galilei, Newton and other such proponents of empiricism (discoveries such as gravity) derived in reality from the fact that these individuals made use of Leonardo's writings, from which they took certain specifics and proceeded to bury the rest.

But in doing this, they limited themselves to attempting to translate into mathematical formulae the discoveries made by Leonardo, without however understanding the method whereby he arrived at them; that is, without understanding the principle of causality of physical phenomena. This was equivalent to believing that a *deus ex machina* moved the universe, the stars and the planets, acting without the existence of knowable laws of causality for physical phenomena. This Newtonian mathematical formalism has collapsed today like a house of cards, said Filipponi, in the face of the most recent discoveries made by Voyagers 1 and 2 in their soundings of Saturn and Jupiter.

These have demonstrated the existence of phenomena which are absolutely unthinkable from the standpoint of Newtonian laws. We do not yet know how to interpret those phenomena. But, since we do know that the universe is coherent, we know the method of investigation which could permit us to understand them, and this is the method of Leonardo. This method must therefore be reintroduced into the schools and universities from which it has been exiled until now.

### **Classical art: two methodologies**

Like Leonardo the scientist, Leonardo the artist is reduced to an impotent, "intuitive" figure plagued by neurosis by official scholarship. Lafayette Foundation spokesmen D. Stephen Pepper and Nora Hamerman sought to overturn this conception, showing the unity of Leonardo's achievement in painting with the scientific conceptions developed by Mirak, Filipponi, and De Paoli. Dr. Carlo Bertelli's presentation on the restoration of Leonardo's *Last Supper* now taking place in Milan, while greatly informative, fell into the epistemological trap of "cutting Leonardo down to size" by looking at him within the framework of formalist criticism.

Dr. Bertelli, who showed a series of magnificent close-up slides of aspects of *The Last Supper* now emerging to light for the first time in over four centuries, correctly asserted that Leonardo was able to flourish in Milan in a way not conceivable in Florence, because Milan as a populous manufacturing center was not susceptible of the kind of "signeurial" feudal rule to which the Florentine republic was ultimately subjected. But Bertelli's assertion that Leonardo rejected the Florentine rationalism of Brunelleschian perspective in favor of an alleged "local Lombard" love of obscurity and mysticism, of mysterious light sources and inexplicable tonal contrasts which Bertelli actually labeled "subjective and irrational" shows a failure to grasp both the Platonic tradition itself and

the way the human mind works.

This notion was refuted in different ways by the present writer, Dr. Mirak, and Dr. Pepper. In my presentation I showed that all the great paintings of the classical school are a visual version of Platonic dialogue, in which the mind is moved to focus on those "singularities" which mark the passage from one level of self-ordering of consciousness to a higher level. This rigorously corresponds to the actual ordering of physical phenomena in the universe, as De Paoli subsequently demonstrated in Leonardo's scientific drawings. The same "shock wave" phenomena grasped in his studies of fluid dynamics are manifested in the composition of the Last Supper as simultaneously a psychological process of the impact of Christ's words upon his Apostles, and as an actual geometric process projected onto the painted wall of the refectory of S. Maria delle Grazie.

It was because of the ability of classical painting and polyphonic music to show both the totality of this process and the individual components of it at the same time, manifesting what Leonardo called "divine proportion," that Leonardo deemed these two forms of composition more advanced than poetry itself in conveying the poetic principle.

Leonardo's use of "chiaroscuro" (strong dark-light contrasts) and "sfumato" (smoky edges) is therefore not an assertion of irrationality and the unknowability of the universe, but the breakthrough to being able to directly represent the moment of change which embodies the law of the universe, a concept previous artists had evoked only indirectly via juxtaposition of the different levels. Leonardo's method is the realization of the Florentine Platonic notion of increasing man's dominion over nature by making the preconscious creative process conscious.

This notion was further developed by Muriel Mirak in her presentation, "From Dante to Leonardo and Luca Pacioli: A New Approach to the Investigation of the Physical Universe." "The fundamental problem of knowledge, which Plato identified, derives from the fact that the real universe—that which is eternal and invariant—is not directly knowable by man. That which we see, we see through a glass darkly, as if in a mirror. This is the visible world, through which we seek to glean the contours of that other invisible, but real universe.

"Even if the relationship between the two worlds be neither direct nor linear, there must however be a lawful correspondence between them, a proportionality that would allow us to approximate knowledge. . . ."

This proportionality or coherence of the universe, said Dr. Mirak, is geometrically expressed by the five Platonic solids. These are the only solids capable of construction with equilateral, regular polygons, and whose generative geometric principle is the golden section, the same geometric principle which is found in the physical universe. This is true from the evolution of spiral galaxies through the proportions of the human body, and studied in these terms by Leonardo.

Dr. Stephen Pepper of the Lafayette Foundation, an in-

ternationally known expert on Italian art, also showed Leonardo's advances in the domain of art to be the product of a profoundly *rational* approach in keeping with the Platonic tradition. He demonstrated how Leonardo introduced the concept of curved perspective as being more appropriate to the description of the universe, which itself is curved and not rectilinear. Curved perspective is also more consonant with our visual instrument, the eye, whose cornea is curved and is not a single point as is presupposed by linear perspective. Dr. Pepper explained how Leonardo conducted these studies through his investigation of the reflection of concave and convex mirrors, in the course of which he even conceived of the idea of a mirror telescope, a discovery which is otherwise incorrectly attributed to Newton.

The conference was brought to a close with the roundtable discussion which took up the theme of Leonardo's legacy from an active standpoint. Christina Fiocchi, head of the Anti-Drug Coalition and a proponent off the Club of Life in Italy, gave a slide presentation on Great Enterprises—giant infrastructural efforts like those which Leonardo da Vinci himself projected—which must be constructed today if the world economy is to be relaunched. Dr. Filipponi gave a detailed explanation of the technology of beam weapons. Dr. Fontanesi of Milan State University explained how fusion energy works and argued strongly for its development as the energy source of the near-term future.

Webster Tarpley, speaking on behalf of Lyndon LaRouche's pro-development Democratic Party faction in the United States, called for the construction of a real peace movement based on the development of beam weapons. He noted that, as a one-time participant in the anti-Vietnam War movement of the 1960s, he could not help but draw conclusions from the fact that the "butcher of Vietnam" Robert McNamara is today in the forefront of the so-called peace movement, based on the unrealizable hoax of a nuclear freeze.

In the discussion that followed, members of the audience struggled to reconcile prevailing concepts of "peace" with the conceptions Tarpley and others had developed. One individual asked whether one should not reject Leonardo's military projects as the "unhealthy" part of his work while accepting his other accomplishments. The hands on the clock of our civilization, Tarpley pointed out, are at five minutes to twelve: In this situation, as in Leonardo's lifetime, our one chance of getting governments to sponsor the necessary economic development based on technological advances which can rescue humanity from the abyss is through an appeal to national security and defense. The beam weapons policy represents the one available way to buy precious time in which the real causes of war—economic underdevelopment—can be attacked and solved, Tarpley explained. Dr. Pepper proposed that a citizens' public assembly on the beam weapons be immediately carried out in Milan in response to the "peace movement's" demands for debate. The proposal was incorporated into the wrap-up of the conference by chairman Marco Fanini, and set for Monday, Dec. 13.