

EXHIBITS

# Leonardo da Vinci: Master of Motion and Time

Toward the end of the Fifteenth century—the age of the Golden Renaissance—Leonardo da Vinci wrote about the marriage of science and art, which numbers painting amongst its offspring:

“If you scorn painting, which is the sole imitator of all the manifest works of nature, you will certainly be scorning a

**‘Leonardo da Vinci,  
Master Draftsman’**

**The Metropolitan Museum of Art,  
New York City  
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subtle invention, which, with philosophical and subtle speculation, considers all manner of forms: sea, land, trees, animals, grasses, flowers—all of which are enveloped in light and shade. Truly, this is science, the legitimate daughter of nature, because painting is born of that nature; but to be more correct, we should say, the granddaughter of nature, because all visible things have been brought forth by nature and it is among these that painting is born. Therefore, we may justly speak of its as the granddaughter of nature and as the kin of God.”

Leonardo spoke as the unparalleled genius in an age that excelled in producing geniuses. His contributions to universal civilization are today recognized throughout the world. Through them, he has become immortal, and it is our great fortune, nearly 600 years later, to be given the opportunity to get to know this extraordinary man through his work. The 120 drawings exhibited at the “Leonardo da Vinci, Master Draftsman” show at the Metropolitan Museum of Art in New York City, provide us the opportunity to look into one of the most creative minds in human history. And, hopefully, the hundreds of thousands of people, many of them young,



Musee du Louvre, Paris

*Leonardo da Vinci, “Virgin and Child with a Bowl of Fruit.”*

Leonardo’s earliest work as an apprentice in the workshop of Andrea del Verrocchio, the most celebrated in Florence at the time, to that of his late notebooks and sketches—those from the *Codex Leicester* are exhibited here—representing his remarkably broad scientific interests. The exhibition is flanked, at the beginning, by several extremely fine works by his teacher Verrocchio, and, at the finale, by works of some of his students and followers. The works were gathered from the world’s leading museums: in addition to the Met, the Louvre in Paris; the British Museum in London; Washington’s National Gallery of Art; the Musei Vaticani, Rome; and many more.

who visited this exhibit, will be reminded by Leonardo that man is made to accomplish great and beautiful things, so that they may act to turn the direction of history away from the path of destruction it has now taken, toward the creation of a new Renaissance.

### Half-Million Visitors

The number of Leonardo’s visitors was staggering: 8,000 a day, 50,000 a week—there were nearly a half-million, during the nine and one-half weeks it was open. They stood in long lines, and waited, often for more than an hour, to view the exhibition, proclaimed to be “the first comprehensive exhibition of Leonardo da Vinci’s drawings ever presented in America.” In fact, the only real criticism one could have of the exhibit, is that it was open for so short a time, and did not travel anywhere else in the United States, that relatively few Americans were able to see it.

The drawings span the period from

Most of the drawings are small: one, a tiny drawing of the “Virgin and Child Holding a Cat” (legend has it that a cat was born at the same moment as Jesus) is barely three inches square [SEE inside back cover, this issue]. Yet, it is in these drawings that the central purpose of Leonardo’s art comes into focus: his overriding passion is to portray *motion*. It was not enough merely to create a third dimension in his art, as the development of scientific perspective, including Leonardo’s own innovations in this, made possible. Leonardo was striving for something more: *the dimension of time*—a fourth dimension.

Building upon the discoveries of the greatest of the Greek Classical sculptors, who succeeded, in their marble figures, in expressing the moment of transformation between one idea, or motion, and the next, as well as the discoveries and achievements of the greatest of the Renaissance artists who preceded him, Leonardo’s astonishing breakthrough

was to portray motion and time, on a two-dimensional surface.

### In Verrocchio's Studio

Leonardo learned a great deal from his master Verrocchio. Several drawings by this artist, included in the exhibition, provide evidence of this; although it is likely that, by the late 1470's and early 1480's, when Verrocchio produced his "Head of a Young Woman in Three-Quarter View," the roles of student and teacher were in the process of being reversed, or, at least, there was by this time a sharing of ideas between the two. We see much of Leonardo in this exceptionally beautiful drawing: the *sfumato*, or smoky quality used to model forms within the atmosphere; the sense of thought caught in mid-motion, reinforced by the tilt of the head and move-



British Museum, London

Andrea del Verrocchio, "Young Woman's Head."

ment of the hair, curling in braids around the forehead, or moving, as if blown by a soft breeze; and the delicate handling of light and shadow to mold the features, hair, and face.

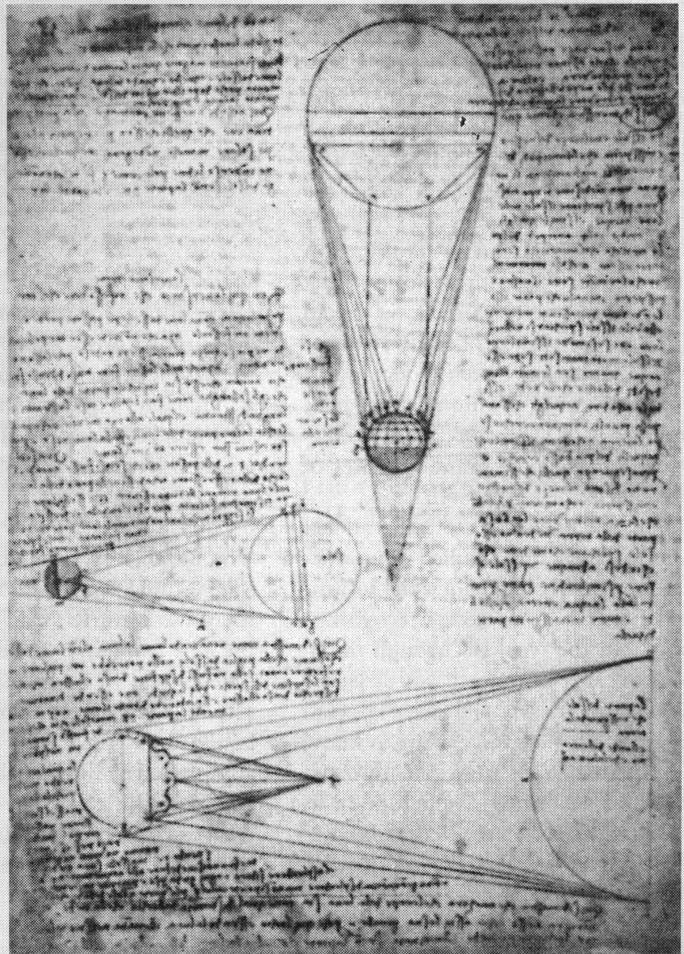
For Leonardo, the *moti corporali* (motions of the body) reveal the *atti e moti mentali* (attitudes and motions of the mind). He wrote that these mental attitudes, along with the *accidenti mentali* (emotions), "should accompany the hands with the face, and thus also with the person." A rapidly executed sketch from the Louvre, "Vir-

## Leonardo's Scientific Studies

Of special note in the exhibit, because they illustrate the exceptionally broad range of Leonardo's scientific interests, are eight pages from the *Codex Leicester*. They are exhibited in vertical glass cases, which can be viewed from both sides—each folio has a *recto* and *verso* page. The exhibition provides descriptions, and brief excerpts in translation, of Leonardo's notes (in his famous "mirror-writing") below the plates.

We see one of the most famous studies from the *Codex Leicester*, exploring the geometry and astronomical features of the relationships among the sun, the Earth, and the moon. In the lower drawing, Leonardo was examining the composition of the moon, and attempting to understand and explain why its reflected light was not as bright as that of the sun. He proposes that the irregular surface of the moon, viewed by an imaginary eye located (on Earth) between the moon and the sun, was the result of water covering the surface of the lunar body. Leonardo hypothesizes that the moon has its own gravity, and in his *Notebooks* debates an imaginary adversary, who asserts that, if the moon were covered with water, it would fall to Earth by the action of gravity. Leonardo retorts that, if the moon's water fell, then the moon itself would fall also, so that, "[t]herefore, not falling, it is a clear proof that the water up there, and earth, are sustained with their other elements, just as the heavy and light elements down here sustain themselves in a space that is lighter than themselves."

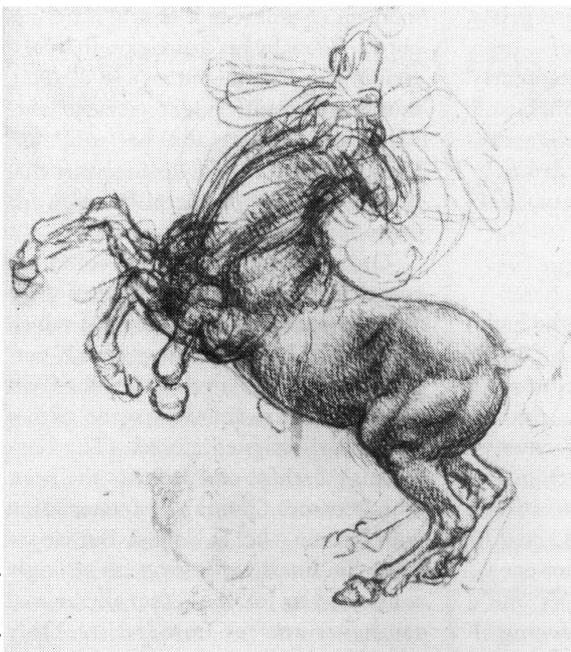
—BJ



Leonardo da Vinci, *Codex Leicester*, sheet 1A (front), fol. 1r.

Private Collection, Seattle, Washington

Leonardo da Vinci,  
"Studies of Rearing  
Horse."



military victory over Milan in 1440. Although Leonardo's *fresco* is lost,\* there do exist numerous studies for the work, which give a flavor of what the mural might have been like.

Despite its diminutive scale—it is only 5½" by 6"—the "Horse," rendered in red chalk, appears monumental. At first glance, it looks as if it were done with time-lapse photography! Leonardo's hand follows the rapid motions of the horse

as it rears up on its hind-legs, seeming to recoil in fear of some invisible foe; its front legs flail in the air, moving through a seeming infinite number of

gin and Child with a Bowl of Fruit," is an early example: The child turns in its mother's arms; its legs and feet are drawn with lightning speed, coursing through several different positions. Leonardo's pen rushes to keep pace with the child, as it twists toward his mother in a gesture of childlike affection, perhaps to feed her a grape, or caress her face. Although the sketch (itself a study for the *Benois Madonna* now in the Hermitage Museum in St. Petersburg) is unfinished, it is clear that Leonardo's focus was to capture the movement of the twisting child, and that of the Virgin as she lowers her face to meet his outstretched hand. It is easy to imagine circling the two figures: Even in this early work, Leonardo exhibits his uncanny ability to render, with just a few quick strokes of the pen, figures with a sculptural quality, giving them weight and spatial solidity.

### The 'Battle of Anghiari'

One of the most dynamic works is the "Rearing Horse," a sketch for Leonardo's lost, unfinished masterpiece, *The Battle of Anghiari* [SEE inside back cover, this issue]. In 1505, he had been commissioned by the Commune of Florence to execute a large mural, or *fresco*, in the Council Hall of the Palazzo Vecchio, where the city government held its meetings, to commemorate Florence's

positions. Most fluid of all are the head and torso, which seem to twist full circle in space—at any moment, you can imagine the horse galloping off the page. No one, before or since, has drawn like this.

To truly appreciate Leonardo's art, it is useful to examine a copy of the "Battle for the Standard"—the central action of Leonardo's *Anghiari*—done in 1603 by the Flemish painter Peter Paul Rubens (1577-1640), based on a 1558 engraving by Lorenzo Zacchia. Rubens, a leading propagandist in the stable of the imperial forces of the Counter-Reformation, then engaged in the bloody Thirty Years' War, celebrates the "glory" of the Empire on the battlefield. As an artist, Rubens had no interest in exploring the sciences to improve mankind's condition, or in creating beauty to uplift the soul; instead, he portrayed man's bestiality. Here, the expressions on the faces of the soldiers are more bestial than those of the horses, who appear terrified, but not blood-

\* The Italian art diagnostician Maurizio Seracini, who has conducted extensive studies with ultrasound and other advanced techniques, believes Leonardo's *Battle of Anghiari*—or at least the central subject, "The Battle for the Standard"—still exists today. Seracini hypothesizes that the original

fresco lies behind a second wall, built in front of it in the 16th century, when Florence's Cosimo I Medici commissioned Giorgio Vasari to execute a series of frescoes more to his liking. It is perhaps only a matter of time before a way is found to remove Vasari's wall, and reveal Leonardo's masterpiece.



Peter Paul Rubens after Leonardo, "Battle for the Standard  
(central portion of 'Battle of Anghiari')."



Leonardo da Vinci, "Saint Jerome Praying in the Wilderness."

thirsty. The entire grisly mangle of bodies—men and animals—perfectly expresses the ugliness and brutality of the oligarchy, which paid handsomely for Rubens' output, incidentally.

### 'Learning To Die'

Beyond question, the highlight of the exhibit is its only painting, Leonardo's unfinished *Saint Jerome Praying in the Wilderness* (c.1482), on loan from the Vatican Museum. In the *Codex Atlanticus*, Leonardo writes, "The greater one is, the greater grows one's capacity for suffering. I thought I was learning to live; I was only learning to die."

Here we see Jerome, in whose vision we comprehend the sum of his life, condensed into a single

moment of time. He is clearly suffering, but we know by his expression that he is striving to live in the image of God; thus, through suffering, to achieve what Friedrich Schiller calls the "sublime." He is prepared to face death, aware that he has become immortal through his contributions to future humanity.

Only Jerome's face and torso are completed in the painting. The saint sits at the mouth of a cave, beyond which lies a misty landscape, suggesting, perhaps, a beautiful afterlife. On the right of the painting, we see a scene with a classically designed church. The lion, Jerome's faithful companion—the beast who becomes "human" by association with Jerome—lies at his feet. But we see from the lion's expression, so strongly contrasted to Jerome's, that the animal can never achieve immortality. Only man can do this—if he can overcome fear.

Like his *Jerome*, Leonardo continues to live for us today through his genius, in which we are privileged to participate in the simultaneity of eternity.

—Bonnie James

## The Courage To Challenge 'Popular Wisdom'

After recently trashing works by Rembrandt and the Italian Renaissance masters, the *Washington Post's* misogynist art critic Blake Gopnik turned his sights on Leonardo in a January 31 review of the Leonardo drawings at the Metropolitan Museum of Art. Gopnik was *just furious* that Leonardo kept getting distracted from painting by his useless scientific pursuits!

According to Gopnik, even when Leonardo finished something—for example, the *Last Supper*, or the *Battle of Anghiari*—his relentless scientific experimentation resulted in a ruined work of art. Which was all the more tragic, as his scientific inquiries were mere dilettantish pursuits, none of which ever came to anything much.

What's the issue here?

Since the 1815 Congress of Vienna, which ratified the oligarchy's determi-

nation to prevent the ideas of the American Revolution from spreading to Europe, Western culture has been under the control of a cabal of empiricists. Thus, the unity of science and art—which made possible the greatest discoveries and achievements of the Fifteenth-century Golden Renaissance—has been outlawed. But, for Leonardo, painting was a *science* of optics, in which the artist/scientist was passionately committed to revealing the physical universe, in all its dimensions, and manifold complexity, on a flat surface.

For example, Leonardo correctly hypothesized in his *Notebooks*, that sunlight was reflected from the Earth onto the dark surface of the moon; he provided a beautiful illustration of his theory in the *Codex Leicester*. But, Leonardo's research was not published, and a century later, in 1610,

Johannes Kepler credited his teacher Michael Mastlin with the discovery.

It is not the fact that Leonardo imagined bicycles, or human flight, long before such things were technologically feasible. Nor that he investigated and put on paper, the motions of water and wind; the composition of the atmosphere; the topology of the rivers and mountains of his native Tuscany; nor that he studied the anatomy of the human body, or how the ideas of the mind are reflected in the glance of an eye, or the gesture of a hand, all of which he so beautifully rendered in his art. It was the *method* by which he made his discoveries—the Socratic method, the passion for truth, the courage to challenge "popular wisdom"—that made Leonardo a genius, and, sadly, far beyond the comprehension of little minds.

—BJ