

LEONARDO DA VINCI: ARTIST, SCIENTIST, AND MYSTIC

Steven Armstrong, FRC

Leonardo da Vinci (April 15, 1452 - May 2, 1519) typifies the art, science, and spiritual yearnings of the Italian Renaissance. During this vibrant transitional period, medieval Western Europe was reawakening to the knowledge and wisdom of the ancient world. This was transmitted to them through reexamining what had been preserved in the West, but even more dynamically, from Constantinople and the Byzantine Roman East, as well as through Islamic science, art, and literature. The result of this fusion was the Renaissance of the fifteenth to sixteenth centuries, which ushered in the modern Western world.

Leonardo's work in all areas of his life typifies this period, a vital connection that links the modern world with ancient civilizations and cultures through this Renaissance in Italy and elsewhere in Western Europe.

Leonardo's full name was Leonardo di ser Piero da Vinci, which means "Leonardo, son of Messer Piero, from Vinci." He lived at a time when our modern custom of last names had not yet arisen; although he is popularly known as "da Vinci," this was simply the name of his hometown. The signature he most frequently used

was "Leonardo" or "Io, Leonardo" ("I, Leonardo").

In this article, we will explore Leonardo's art, science, and mysticism through his paintings, inventions, and the legacy he left for the generations that followed him. Few figures have inspired such lasting admiration and been the source of such mystery, as this master of the Italian Renaissance.

Leonardo spent his life investigating the orderly laws that govern the universe and humanity. We can follow his path through the beauty and wisdom he has left for us across the centuries to seek these same truths, discovering the design of nature, revealing nature's ultimate source.

Early Life and Work

Leonardo was born in Vinci, Italy, on April 15, 1452, the son of a notary, Ser Pietro, and a peasant woman, Caterina. He lived with his father in Florence, beginning school at the early age of five. Even as a young man, his ability to draw was notable, and after Leonardo's father showed the painter Andrea del Verrocchio his work, the latter accepted Leonardo as an apprentice at the age of fourteen.

Art was changing as Leonardo grew up. The work of the masters of the previous century was now carried forward with



Francesco Melzi (attributed), Profile of Leonardo da Vinci, ca. 1515. Considered the only surviving drawn likeness of Leonardo da Vinci made from life by a close associate.

even more self-expression, humanism, and emotion. Apprenticing with Andrea allowed Leonardo to learn the crafts necessary for his many future artistic endeavors. In 1474-1475, he collaborated with his master on the *Baptism of Christ*. Leonardo finished the background and the angel on the left. In his first painting *The Annunciation*, his early skill in taking a traditional subject and imbuing it with drama is clear.

Early on, Leonardo's keen intellect and sensitivity for all the beauty and life around him were remarkable. For at least part of his life he was a vegetarian, and even a vegan, speculating at one point that taking milk from cows was theft. This was only one way in which Leonardo inherited the spirit of the ancient Pythagoreans. His first biographer, Giorgio Vasari, reports that he would purchase caged birds on the streets of Florence only to set them free. It would be the first work of many in Leonardo's life that strove to set life free from artificial constraints so that all beings could participate in their own Divine natural order.

Leonardo's Career and Originality

After completing his apprenticeship with Andrea del Verrocchio, Leonardo set up his own studio in Florence in 1476. His talent soon brought him to the attention of the Duke of Milan, Ludovico Sforza. From around 1482 to 1499, Leonardo operated his artistic studio and accepted apprentices under this patronage. The French capture of Milan in 1498 eventually impelled Leonardo to move elsewhere, and by 1500 he entered the employ of Cesare Borgia of Florence, the son of Pope Alexander VI, working as a military architect and engineer. During the period 1500-1515, he accepted commissions and worked in Florence, Milan, Rome, and elsewhere on the Italian peninsula, while creating a body of work that included paintings, sculptures,

drawings, engineering, inventions, and scientific works.

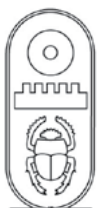
From 1515 to his death in 1519, Leonardo was in the service of the French king, Francis I, setting up his studio and shop next to the king's residence at the Château d'Amboise. He became very close to Francis, and one legend says that he died in the king's arms. At Leonardo's request, his funeral cortege was made up of sixty homeless people.

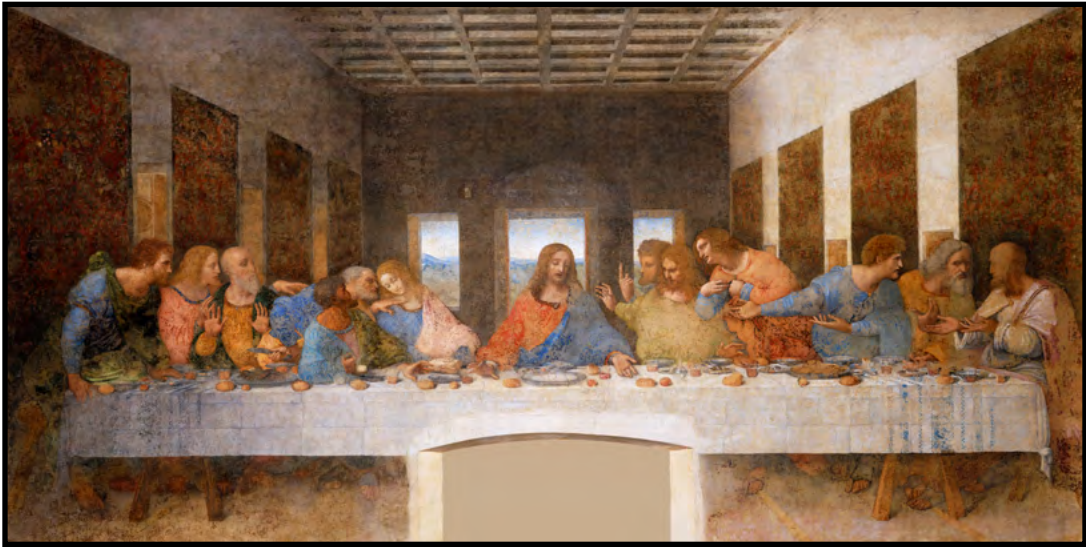
Leonardo was never content to leave an art form as he found it, always seeking new ways to use the understanding of the natural laws around him to bring beauty to light. Two of the painting techniques he is best known for pioneering are *chiaroscuro* and *sfumato*.

Chiaroscuro (Italian: Light-Dark) allows the artist to work with the natural light and dark in a scene to manifest a sense of realism, depth, and motion in a painting. His *Saint John the Baptist* (1513-1516) demonstrates the effectiveness of this technique, which would become dominant in Italian and Flemish art during the fifteenth and sixteenth centuries.



Leonardo da Vinci, *Saint John the Baptist*, 1516.





Leonardo da Vinci, The Last Supper, 1498.

Using the sfumato (Italian: Smoky) technique, the artist paints “without lines or borders, in the manner of smoke or beyond the focus plane” (Leonardo). This effect is created by painting layers of translucent color, which then give the impression of form, volume, and depth. There should be continuous gradations of color, without perceptible lines of transition. A famous example is the face of Leonardo’s *Mona Lisa* (1503-07), where the shading around the eyes demonstrates this technique perfectly.

Leonardo’s Vision of the World

As an artist, inventor, engineer, and mystic, Leonardo always worked to see how the pattern of all being worked, both large and small, and how all of the parts of the greater system functioned harmoniously.

Modern scholar Martin Kemp, in his book *Leonardo da Vinci*, described how Leonardo had to

... embrace a wide range of natural sciences and mathematics, as he searched for scientific rules governing both humanity and the universe. It was these rules, which provided the basis for his imaginative reconstruction of

nature in master works such as *The Last Supper*, the *Mona Lisa*, and *St. John*, which reveal his increasingly complex vision of humanity in the context of nature. And towards the end of his life, Leonardo became fascinated with the mathematics underlying the ‘design of nature,’ behind which lay the ultimate force of the ‘prime mover,’ as manifested with supreme power in his Deluge drawings.

This quest has been true of all mystics from the beginning of time. Pythagoras and his school in the sixth century BCE said that “the Divine geometrizes,” echoing the wisdom of ancient Egyptian and other, older sources. Leonardo found inspiration for this in the newly rediscovered works of Vitruvius. One of his most famous drawings, *The Vitruvian Man* (1490), clearly illustrates his understanding that human beings and our workings are a microcosm of the whole creation. Expanding on a passage from Vitruvius’s *De Architectura* 3.1.3, Leonardo encloses the human form in a circle—a symbol of the spiritual world, and a square—a symbol of the material world.

This image of the linkage between humanity and the world here “below”

with the whole of creation and beyond is perhaps the most vivid representation of the ancient Hermetic adage “As Above, So Below; As Below, So Above.” The power of this imagery is demonstrated by its resonance down through the centuries, from William Blake’s *Albion or Glad Day* (1796) to the modern Italian 1 Euro coin. Leonardo’s vision is as inspiring and powerful today as it was over 500 years ago.

Leonardo’s Notebooks

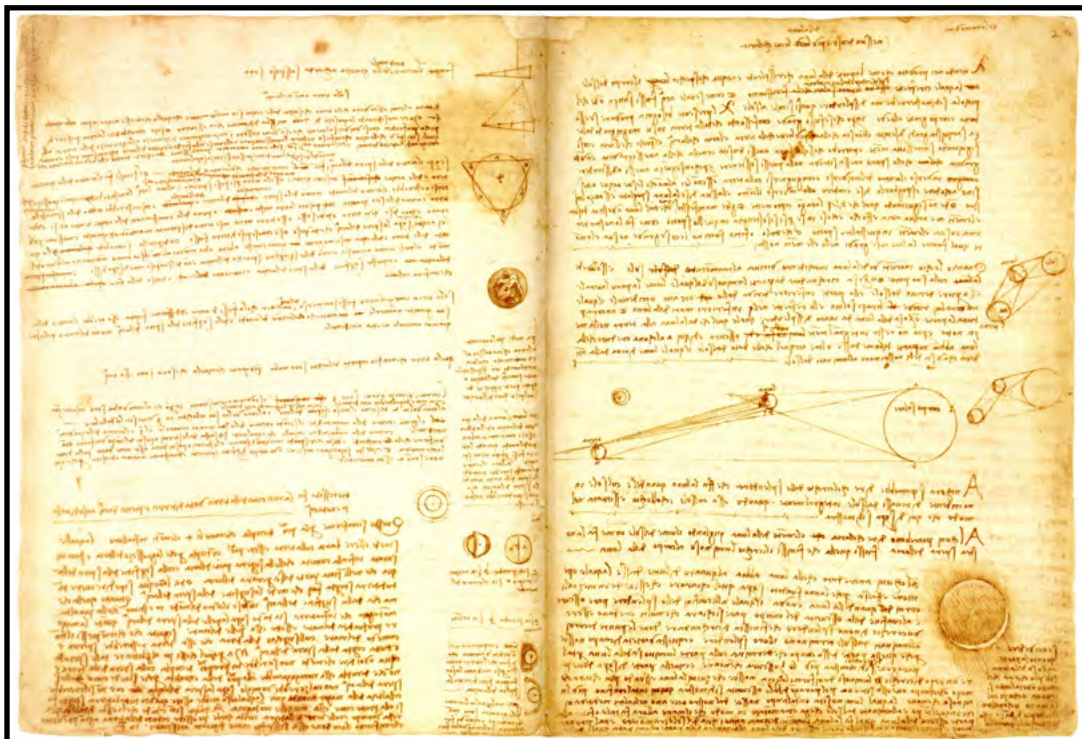
In addition to his painting and sculpture, Leonardo kept detailed notebooks of his scientific, philosophical, and artistic studies, sketches, inventions, and plans for machines. Although their content is brilliant, Leonardo’s notebooks fell into oblivion after his death and were not recollected and recognized until the nineteenth century. Historian Lewis Mumford has suggested that the artist made a deliberate decision not to publish his journals, so that his inventions and knowledge would not be available to those

who would misuse them against humanity, in particular his extensive designs for weaponry.

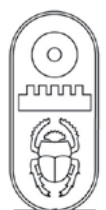
Today, we have over 13,000 pages of material from this master of all the arts. Most of the notebooks and pages have found their way into museums, but one, the *Codex Leicester* (formerly the *Codex Hammer*), a collection of scientific work, is owned by Microsoft’s founder Bill Gates, who exhibits the *Codex* once a year in a different part of the world.

True to the spirit of the Renaissance, and consistent with Rosicrucian thought, Leonardo did not see the sciences and the arts as separate from one another, but simply as complementary approaches to the wonders of the world around him. Leonardo’s ideas, writings, and sketches in the areas of the sciences and engineering are as much works of genius as his painting.

Leonardo’s approach to science was based on observations rather than theory. He attempted to observe the most minute details of whatever he was studying and



Pages from the Codex Leicester, Fol.35v (left) and Fol.2r (right).



then recorded these details with utmost accuracy. He was continually observing all of nature and humanity around him with a keen eye and kept his notebooks in mirror writing—that is, backwards script that would appear normal in a mirror. As a left-handed writer, it was easier to “drag” the quill pen rather than push it. This also gave a certain level of security to his journals.

From the time of his apprenticeship to Andrea del Verrocchio to the end of his life, Leonardo explored human physiology, as is evident from both his notebooks and art. He was given permission to perform dissections in the morgues of several major Italian cities in order to further his researches. Around the year 1495, he created the first known description of how to construct a human-like robot, but there is no evidence that he attempted to build such a machine.

Leonardo the Visionary

Although much of the material in Leonardo’s notebooks and journals is keen observation of the natural world, the artist often goes beyond his own world and dreams of what might be. Inspired by the ancient science described by the work of Vitruvius and other classical writers circulating during the Italian Renaissance, he knew that human society had once been more advanced, and that nothing theoretically stood in the way of even further growth and discovery.

One of Leonardo’s fondest dreams was that of flight. His notebooks are full of sketches and designs for flying machines, both bird-winged and similar to a helicopter. True to his method of close observation, he tracked and recorded the flight of birds with amazing accuracy.

Leonardo is said to have tested one of his gliders in an unsuccessful bid to fly in 1496. His wind-screw would not have worked, due to the rotation of the whole construction. However, his design for a light hang glider was built and test-flown in 2005 for a PBS documentary. With sufficient time and materials, it is likely Leonardo would have succeeded in his own lifetime.

In January 2005, researchers Alessandro del Meglio, Roberto Manescalchi, and Maria Carchio discovered Leonardo’s secret workshop in Florence. It is a set of hidden rooms in what had once been the



One of Leonardo da Vinci's sketches for a flying machine.

Friary of the Most Holy Annunciation, and contains many frescoes and other drawings strikingly similar to those in Leonardo’s paintings and notebooks. These may have been painted by the master himself, or by his students. It was in these rooms that much of Leonardo’s creativity was expressed in the years following his return to Florence in the early sixteenth century, including possibly the

Mona Lisa and many of the studies on anatomy and other work in the journals.

Leonardo’s tireless spirit of investigation and invention has continued to inspire all those who seek to learn natural laws in order to live in harmony with them, and achieve potentials yet undreamed.

Mysteries of Leonardo’s Works

With a person of Leonardo’s brilliance in the arts and sciences, in addition to his knowledge of natural laws, it is little surprise that he may have left us some enigmatic messages in his works. Speculation and



The two versions of The Virgin of the Rocks, painted by Leonardo da Vinci. The version in the Louvre is on the left; the version in the National Gallery in London is on the right.

mystery have always surrounded certain aspects of his achievements. Some theorize that he may have been responsible for the image on the Shroud of Turin, but no conclusive evidence has been established.

Certainly, Leonardo was not a typical believer of the fifteenth to sixteenth century. As his biographer Vasari wrote in his 1550 edition on the artist's life: "His cast of mind was so heretical that he did not adhere to any religion, thinking perhaps that it was better to be a philosopher than a Christian." Modern biographer Marco Rosci's 1976 *Leonardo* suggests that he "adopted an empirical approach to every thought, opinion, and action and accepted no truth unless verified or verifiable, whether related to natural phenomena, human behavior, or social activities. . . . He still pinned his faith in logical certainty, in the often-repeated affirmation that mathematics and geometry were the true foundations of knowledge."

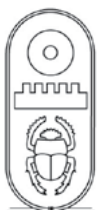
Leonardo followed a path of knowledge—what he could discover for himself, rather than belief in what someone else had told him. Throughout the centuries many have wondered

whether he encoded some of his thoughts and ideas into his art.

Two famous examples of this are in his paintings *The Last Supper* (1498) and *The Virgin of the Rocks*, painted in two versions (1483-1486 and 1495-1508).

In *The Last Supper*, the figure to Yeshua's right has traditionally been identified as John, "the beloved disciple." However, some have speculated (most recently, Dan Brown in *The Da Vinci Code*) that this indistinct figure is, in fact, Mary Magdalene, whom some claim to be the wife of Yeshua. Others also point out that the raised finger gesture by the Apostle to Yeshua's left may be a hostile sign, intended by Leonardo to criticize the official positions of the Christianity of his time.

Leonardo painted two versions of *The Virgin of the Rocks*. Today, the earlier version is in the Louvre in Paris, while the latter hangs in the National Gallery in London. In both, the Virgin has her arm around the shoulders of the infant John the Baptist and holds her hand in a seemingly menacing gesture over the head of the infant Yeshua. In the earlier version,



the angel Uriel also points, not to Yeshua, but to John the Baptist. All of these factors have led some to speculate that Leonardo was pointing away from the mainstream religious patterns of his day to the more ancient traditions represented by John the Baptist and the Virgin Mary. For example, many trace the imagery of the Virgin Mary back to the Egyptian goddess Isis and other images of the Divine Feminine. Another group, often associated with the ancient Gnostics, still exists in the Middle East. Called Mandaean, they maintain that John the Baptist was the true Messiah.

It is likely that we will never know specifically what Leonardo was trying to convey through these ambiguities in his works. Nevertheless, we can certainly know that his own mysticism and spirituality, as expressed in all of his work, was dedicated to discovering the laws that govern the universe and humanity. Leonardo sought to convey those laws through beauty and inventiveness to those who have eyes to see and ears to hear.

Mysticism Before and After Leonardo's Time

Leonardo was by no means alone in his mysticism, or in holding views that challenged the mainstream patterns of thought. Before Leonardo's time, the twelfth-century Italian Christian monk, Joachim of Fiore, had taught that the Age of the Holy Spirit was fast approaching, when the structures of Church authority would no longer be needed, and that all would have direct access to the Divine. Needless to say, those in power at the time often did not favor these kinds of opinions.

Contact with the Christian East, with Islam, and with the Jewish community also began a return of ancient sources of wisdom to the West. This had accelerated during the time of the Crusades (eleventh through thirteenth centuries). Gnostic

Christians also flourished across northern Italy and southern France during this same time and carried with them many of the mystical ideals of the past. Finally, the impending fall of Constantinople and the Eastern Roman Empire in the first half of the fifteenth century resulted in an influx of scholars and religious figures coming to Italy. They brought with them many valuable documents and ideas long lost to the West.

When the ancient Hermetic literature from Alexandria of the second century CE was reintroduced to the West at this time, great interest was aroused. This was quickly coupled with the wisdom of the Jewish Kabbalah that had been brought from Spain and the Middle East.

With this inspiration, Italian Renaissance mystics and scholars of esotericism began to study and teach the venerable wisdom once again. Pico della Mirandola (1463-1494), in his biblical commentary *Heptaplus*, advances the notion that all religions and spiritual traditions are harmonious, and point to the same eternal truths. It is little wonder



Leonardo da Vinci, The Ironworker's Beautiful Daughter, 1490.

that Leonardo found inspiration for his unorthodox ideas in such a rich climate of mysticism.

Following Leonardo's time, the tradition of inner spirituality continued, but was also opposed by civil and church authorities. Giordano Bruno (1548-1600), a brilliant scientist, philosopher, and mystic was burned at the stake in Rome for his works and teachings. Jacob Boehme (1575-1624) was also persecuted in Germany for his teachings that all had direct access to the Divine Wisdom.

After the Rosicrucian Manifestoes of 1614-1616, many mystics associated with this movement carried on Leonardo's search for understanding and living according to the Cosmic Laws, which bring together all things according to the ancient adage, "As Above, So Below; As Below, So Above." These include Michael Maier (1568-1622) in Germany, as well as Francis Bacon (1561-1626) and Robert Fludd (1574-1637) in Britain.

Throughout the centuries, the Primordial Tradition celebrated by Leonardo has continued to inspire great works of science, art, and spirituality, and this continues to the present day.

Leonardo For All Times

"Wisdom is the Daughter of Experience." (Leonardo da Vinci, *Notebook III*, 8ob)

Having journeyed with Leonardo, connecting the ancient world to our own, it is not enough to stand in admiration of his genius and creativity. Women and men throughout history have been inspired by the same natural laws and principles to continue his work of discovery, beauty, and invention.

Pioneers in their fields such as Marie Curie, Booker T. Washington, and the Wright Brothers were not content to simply repeat what others had done, but advanced



Leonardo da Vinci, Profile of a Warrior in Helmet, 1472.

our knowledge and implementation of the laws which govern all things. Creative genius again and again employs these laws to reveal beauty, as in the works of Marie Corelli, Claude Debussy, Erik Satie, and Edith Piaf.

In each instance, we can hear the sage advice of Leonardo from his *Codex Atlanticus*: "Anyone who, in discussion, relies upon authority, uses, not the understanding, but memory." (75a)

Leonardo understood the ancient wisdom that the human person is a microcosm of the whole world. It follows that one can come to know whatever is needed by a careful study of creation, and inner meditation. In this way, we come to discover what Leonardo did, that we are truly *Capax Universi*, capable of all things. We can follow the path of discovery, invention, joy, and beauty that Leonardo blazed for us in our own lives today, working for the progress of humanity, and our entire planet. This kind of testament is one that Leonardo would most surely appreciate.

