Leonardo and the human potential: An appreciation of Ken Burns' series *Leonardo da Vinci*

Walter Gilberti 15 December 2024

A film by Ken Burns, Sarah Burns and David McMahon, on PBS

Leonardo da Vinci, a two-part, four-hour documentary by veteran filmmaker Ken Burns, Sarah Burns and David McMahon, was broadcast on PBS in November. It is now available for streaming.

The film, deserving of a wide audience, is the first Burns production focused on a topic or person not American. In an interview, Burns noted that the similarities between Leonardo and Ben Franklin, a subject of one of his more recent productions, led him to consider examining the Italian Renaissance luminary.

The life story of Leonardo (1452–1519), one of history's most extraordinary intellects and artistic geniuses, always stirs the imagination.

His name evokes achievements that number among the pinnacles of human endeavor, and the boundless potential of human consciousness and activity. The terms "genius" and "polymath" so often used to describe his unquenchable intellect are certainly apt. But it is also the case that his emergence as the preeminent artistic and scientific thinker of the late 15th and early 16th centuries was no accident. Every historical period, from the most progressive to the most retrograde, thrusts up individuals who embody the essence of the epoch.

Leonardo's reputation rose as Europe and the Old World were recovering from one of the greatest catastrophes in human history, the horrific Black Death, the bubonic and pneumonic plague pandemics of the mid-14th century that wiped out a third of the populations of Europe, Central Asia, the Near East and North Africa. It should be noted that the year of Leonardo's birth was also the year in which Johannes Guttenberg invented the printing press.

The epoch of the Middle Ages was coming to an end, and with it came the first serious stirrings of a truly humanistic and secular society. The Renaissance that emerged in the flourishing and competitive Italian city-states, centers for banking and commerce, had their counterparts in the Flemish- and Dutch-speaking regions of Europe, and together they produced remarkable individuals whose artistic, scientific and literary accomplishments hold an honored place to this day.

Leonardo's contemporaries in Florence included artists such as Sandro Botticelli and Fra Filippo Lippi. By the time Leonardo was in his 40s, Michelangelo had sculpted his *Pietà*, and shortly later a young Raphael was gaining widespread admiration for his art. Meanwhile, Machiavelli was developing some of the first political theories of bourgeois statecraft that would constitute his celebrated work, *The Prince*.

Leonardo was given the name of his birth village, Vinci, a short distance from burgeoning Florence. As the two-part documentary points out, his birth out of wedlock automatically restricted the possibility of his receiving a formal education. Nevertheless, the contradictory character of the emerging epoch, the social order's liberating qualities coinciding with the rule of oligarchical families like the Medici in Florence, despite the

continuing dominance of the Catholic Church, opened up opportunities for the brilliantly talented Leonardo. He became the apprentice of one of the most well-known artists of the period, Andrea del Verrocchio. In a short time, however, the student would surpass the teacher.

The Burns-McMahon effort includes narration in addition to insightful commentary from several of Leonardo's biographers, including Walter Isaacson, as well as Mexican filmmaker and Oscar recipient Guillermo del Toro. Their contributions add to our understanding of Leonardo as the representative of something new.

Leonardo is described by commentators as an "extremely rational" man who saw in all phenomena, including human existence, an underlying symmetry. His copious notes, often written backwards as mirror images, and exquisite illustrations, remarkable in their detail, reveal that for him nothing in the world was simply given. Everything had to be examined, probed and dissected in order to be fully understood. The documentary highlights Leonardo's obsession with "squaring the circle." He sought to reveal the deep connections between man and nature, and its illusive symmetry, immortalized in his famous drawing *The Vitruvian Man*, in honor of the Roman architect, Vitruvius.

Leonardo referred to himself as a "disciple of experience," a not accidental phrase. He recognized that real insight could only be found by understanding the natural world, a profound conception that not only informed his artistic and scientific investigations, but more importantly established, at least in his own mind, their underlying unity. As one art historian has written, "As an artist and scientist, Leonardo came to his revolutionary belief in empirical observation as the foundation of all knowledge." (Leonardo da Vinci, *Master Draftsman*)

He is described by one contributor to the Burns series as not being particularly religious. In one extraordinary, albeit brief, segment in the PBS presentation, Leonardo's interest in philosophy leads him to a critique of Plato's approach of proceeding from the ideal to the world of real objects. Instead, in a remarkably materialistic interpretation of the path of cognition, Leonardo insists that it is through the study of the natural world that ideas are generated.

Leonardo is certainly most associated in popular consciousness with his artistic works. In drawing upon the developments in artistic perspective pioneered in some of the works of the Flemish masters, Leonardo experimented with three-dimensionality in his paintings. He examined the effects of light and shade, using a technique that was to become known as *chiaroscuro*. He layered gauze-like colors, especially when painting the human skin, so that the individual depicted on wood or canvass was both distinct and part of the overall landscape. In this method, called *sfumato* (smokiness) there were no sharp edges making the transition between light and shadow in his paintings extraordinarily natural and vivid.

Leonardo was the first artist to draw or paint landscapes, that is, to

create works where the principal focus was on the natural world. His first such work was a detailed sketch of a section of the Arno river (which flows through Florence). In his paintings, the subjects in the foreground are invariably part of a greater whole. Leonardo's interest in mathematics allowed him to apply geometry to the creation of perspective, the "single point linear perspective," from which the idea of the "vanishing point" in painting originates.

Leonardo sought to depict movement in everything he painted. His notebooks are packed with drawings of flying machines, of machines in general, that reveal a knowledge of physics. In fact, his study of falling objects anticipated the work of both Galileo and Newton. He was, as well, an expert in illustrating animal locomotion, particularly involving horses.

His drawings examining the human form and anatomy are unsurpassed, and his interest in human physiology would lead him to two important discoveries regarding the heart. When he was allowed to perform an autopsy on a man who lived to be 100, he discovered that in the interior of the man's arteries leading to the heart was a substance that he described as resembling a lemon clogging the openings. He concluded that this obstruction, a condition we now call atherosclerosis, was the cause of the man's death. His dissection of the corpse also revealed that the human heart had four chambers.

Another aspect of Leonardo's innovativeness in his paintings involved his portrayal of women. Leonardo broke with the practice of painting women's faces as profiles; inscrutable and unquestioning. Now they faced their viewer, as in the immortal painting *Ginevra de' Benci*. Later, his famed *Mona Lisa* would be the consummation of this attitude for all time.

The Burns-McMahon film deals succinctly with the artist's homosexuality, prompting the *Los Angeles Times* to disapprove: "The doc acknowledges its subject's homosexuality but doesn't fully explore the implications for an artist living in a repressive milieu." Actually, Burns does explore the implications of homosexuality in late 15th-century Italy without overstating its significance.

According to the Burns mini-series, several young people were charged under the sodomy laws imposed by the Catholic Church, with Leonardo's name included. However, one of the youths involved was the son of a prominent Florentine family, and when the latter intervened, the charges were quickly dropped. Homosexual relations were widely tolerated during the early Renaissance, depending on the social circumstances, and a young boy "given" to Leonardo to be his trainee and assistant, Gian Giacomo Caprotti, nicknamed "Salai" (little devil) because of his meddlesomeness, became his life-long companion. His somewhat genderambiguous face appears in a number of Leonardo's paintings.

The Renaissance purported to be a return to the classical period of Greco-Roman culture, and a negation of the backwardness associated with the Middle Ages, especially in the centuries that followed the fall of the Roman Empire, the period known as the Dark Ages. However, the Catholic Church dominated official ideology. Artistic works, if not representations of the gods and goddesses of Greco-Roman mythology, treated religious themes, the most popular of these being depictions of the Virgin Mary and baby Jesus, the Madonna and Child theme.

As Leonardo was increasingly recognized for his artistic brilliance, he was given commissions to produce works of art by various religious institutions. He had developed a reputation, however, as a perfectionist who would see mistakes in his work that his patrons would either discount or be oblivious to. Thus, he would abandon many projects uncompleted. One such painting, undertaken somewhat later in life and commissioned by the King of France, was Leonardo's *The Virgin and Child with Saint Anne and Saint John the Baptist*.

However, the most famous of these unfinished works was his painting of the *Adoration of the Magi* commissioned for a church in Scopeto, outside Florence's walls. The painting is spectacular and complex. While the theme is supposedly centered on the visit by the Magi (three wise men

or kings) to the baby Jesus and Mary, there is much going on. Everywhere there is movement. In the background, there is a battle occurring, and surrounding the Madonna and child are numerous people talking to each other, some seemingly paying no attention. Even the Magi express a range of emotion from adoration to skepticism, and on the right, there is one visage turned away—presumably, according to the Burns-McMahon series, a portrait of the artist himself.

Leonardo subsequently left Florence for Milan, and worked under the patronage of Ludovico Sforza, "il Moro [the Moor]." One of his first works in Milan was a painting of the Duke's 16-year old daughter, *Lady with an Ermine*. But it was his mural *The Last Supper* that would be his crowning work in that city.

With *The Last Supper*, Leonardo's genius is on full display. In preparation for the work, Leonardo purchased a Bible translated into Italian so he could get a better understanding of the Apostles. His knowledge of geometry allowed hm to brilliantly frame the entire mural, placing Jesus at the center. But this was not some wooden depiction of the event but revealed instead the turmoil of Jesus' alleged last days, or as described by the narrator in the Burns presentation, the work created "harmony out of chaos." One sees in Leonardo's work the whole spectrum of human emotion; agitation and even fear, as Jesus is asking "who will betray me?" Judas, the actual traitor, is watchful rather than alarmed. Then there's the woman (Mary Magdalene?) to Jesus's right apparently flirting with an Apostle.

The Russian Marxist Georgi Plekhanov argued that the mural's subject

is that highly dramatic moment in the relationship of Jesus to his disciples when he says: "One of you shall betray me." Leonardo da Vinci's task was to portray the state of mind of Jesus himself, who was deeply grieved by his dreadful discovery, and of his disciples, who could not believe there could be a traitor in their small company.

Leonardo is reputed to have commented on completing *The Last Supper*, "Tell me ... if anything is ever done." For Leonardo, everything was movement and change, and no work was truly finished. His final work, the iconic *Mona Lisa* was completed after returning to Florence in 1503. The city was recovering from the effects of the Catholic "reformer" Girolamo Savonarola, who replaced the Medici until his execution in 1498.

Of the Mona Lisa, Burns says the following:

The *Mona Lisa* is more than a portrait—it's the culmination of a life spent exploring the fusion of art, science and the natural world, in which Leonardo captures the mysteries of the mind and the human experience.

Leonardo died in 1519, just as the European political and cultural landscape was changing. The Protestant Reformation was in its early stages, with Marin Luther having posted his 95 grievances against the Catholic Church two years earlier. In England, Henry the VIII would force a break with the Vatican in the 1530s, and the writings of Shakespeare would later transform the English language and world literature.

The scientific revolution would begin with Copernicus and Galileo challenging and overthrowing the dogma of the Earth-centered universe. These profound changes would provoke a reaction by the Catholic Church with the Inquisition and later, the Counterreformation. Meanwhile, the Age of Exploration and the expansion of the European powers globally was underway.

The decision of Burns and his collaborators to produce *Leonardo Vinci* has borne fruitful results. Leonardo's life strongly tells us that the arrow of human progress still points up, and that all the problems facing mankind caused by a moribund capitalist system can be resolved.

Leon Trotsky was optimistic about humanity's fate. He concluded *Literature and Revolution* (1924) with this remarkable passage:

It is difficult to predict the extent of self-government which the man of the future may reach or the heights to which he may carry his technique. Social construction and psychophysical self-education will become two aspects of one and the same process. All the arts—literature, drama, painting, music, and architecture will lend this process beautiful form. More correctly, the shell in which the cultural construction and self-education of Communist man will be enclosed, will develop all the vital elements of contemporary art to the highest point. Man will become immeasurably stronger, wiser, and subtler; his body will become more harmonized, his movements more rhythmic, his voice more musical. The forms of life will become dynamically dramatic. The average human type will rise to the heights of an Aristotle, a Goethe, or a Marx. And above this ridge new peaks will rise.

I would add Leonardo's name to those "heights" to which humans under socialism will rise and surpass.



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