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Leonardo: Interminable Analysis of an Unfinished Mastery

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Abstract
This essay explores the complex interplay between Leonardo da Vinci's genius and Sigmund Freud's psychoanalytic theories, as initiated in Freud's work *Leonardo Da Vinci and A Memory of His Childhood*. The analysis critiques Freud's attempt to interpret Leonardo's creativity and personality through the lens of repressed sexuality and its sublimation into artistic and scientific achievements. Highlighting Freud's methodological shortcomings—such as reducing Leonardo's multifaceted life to a singular sexual dimension—the essay nonetheless acknowledges his significant contributions to the art-psychoanalysis discourse. Through a nuanced reevaluation of Leonardo's life and works, the study underscores his boundless curiosity, interdisciplinary talents, and innovative approaches to art and science. While Freud's interpretations often conflated biographical details with artistic symbolism, the essay advocates for a perspective that appreciates Leonardo's eccentricities, including his fragmented working style, as intrinsic to his genius. This approach rejects reductive interpretations, presenting Leonardo's eclecticism and creative dispersions as defining qualities of his mastery. By framing Leonardo's oeuvre as a synthesis of form, imagination, and exploration, the essay ultimately posits that his «unfinished» legacy reflects the perpetual motion of an unparalleled creative mind, offering insights into the anatomy of genius and the complex dynamics between art and identity.

Keywords Leonardo da Vinci · Psychoanalysis · Sigmund Freud · Aesthetics

1 The Phases of Freudian Inquiry

This contribution focuses on Leonardo da Vinci and examines the possibility of placing him on the psychoanalyst's couch. Such an approach is not unprecedented, as Sigmund Freud famously addressed this topic in a significant essay (Freud, 1957). The discussion begins with an analysis of Freud's interpretation, situating it within the broader context of Leonardo's multifaceted biography. Alternative interpretive hypotheses are then explored. To begin, let us examine the phases of Freud's work and research, so as to more precisely locate the essay that is central to our attention. It is worth underscoring that these are phases rather than periods, which would imply a strictly chronological progression. Indeed,

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while the first of these phases—the one associated with Freud's collaboration with Breuer and the examination of cases of hysteria—can be identified with a roughly defined timeframe (from about 1880 to 1900), the other three strands of Freudian inquiry tend to overlap, rendering a coherent chronological subdivision virtually impossible. The second line of research pursued by Freud is that of observing and studying clinical cases, i.e., properly psychoanalytic analyses. To this phase we can attribute some of his most renowned works, including *The Interpretation of Dreams* and *The Psychopathology of Everyday Life*, as well as his celebrated introductory lectures on psychoanalysis. At this point, Freud penetrates *intus et in cute* into psychoanalytic practice, illustrating a whole series of cases drawn from his own work with patients at his office at Berggasse 19 in Vienna (Engelman, 1976).

The third line of inquiry pertains to the publication of his metapsychological writings, which includes the well-known and controversial *Beyond the Pleasure Principle*. This corresponds to the so-called theoretical phase, in which Freud interprets psychic phenomena and seeks a theoretical-conceptual framework for the psychoanalytic practice to which he dedicated himself day after day—a profession he had effectively invented. The term he uses to classify these works signals a lexical and terminological innovation, one that Freud promotes to better investigate the previously uncharted territory of the unconscious.

By *metapsychology*, the author wishes to convey the necessity—reached at a certain stage in his studies—of going beyond psychology and venturing into a more explicitly theoretical domain. Within this domain, the concepts he uncovered acquire sharper definition, albeit more abstract and less tied to clinical practice. The fourth and final phase, which can be considered a subset of the third, corresponds to the drafting and publication of philosophical writings and essays—works that are even more sociological, anthropological, and aesthetic in nature. To this line of research belongs the text we will address, *Leonardo da Vinci and a Memory of His Childhood* (Freud, 1957), along with other very famous works still quite accessible to non-specialist readers, such as *Totem and Taboo* (Freud, 1955) and Freud's analysis of Wilhelm Jensen's *Gradiva* (Freud, 1959).

2 The Kite of Discord

Within the broader framework outlined above, Freud, adopting a more applied approach to his ideas rather than a strictly clinical one, devoted a period of his work to understanding the genius of Leonardo da Vinci. By the nineteenth and twentieth centuries, Leonardo was already known as the eclectic artist we know today. After studying his writings, on October 17, 1909, Freud wrote a personal letter to his friend and then-favored disciple, Carl Jung, in which he confided: «The riddle of Leonardo da Vinci's character has suddenly become clear to me» (Freud 1991, p. 161).[1] Like the spark of Platonic memory, Freud seems to describe a sort of illumination he experienced regarding the Tuscan artist, who until that moment had remained obscure and even mysterious to him. The childhood episode that

[1] The letter dates back to 1909, thus preceding by four years the rupture between Freud and Jung, which occurred when Jung broke away from psychoanalysis to develop his own analytical psychology. The separation between the two components of the term psychoanalysis—*psyche* and *analysis*—becomes emblematic of the conceptual rift Jung enacted in relation to Freudian inquiry. In particular, as is well known, Jung found Freud's sexual theory to be excessively reductive. For Jung, libido was not exclusively sexual energy but rather a more general form of psychic energy, capable of interacting with diverse psychological processes and domains. It is worth recalling these details here, since Freud's essay on Leonardo focuses primarily on a reading that emphasizes the sexual dimension of the artist's biography.

gives the title to Freud's essay—published just a few months after his letter to Jung—centers on a note by Leonardo that stands out as exceptional, as it is one of the very few annotations in which he records something personal. Indeed, we have no other autobiographical writings from Leonardo, for example, concerning his childhood or youth. Leonardo writes: «Questo scriver sì distintamente del nibbio par che sia mio destino, perché ne la prima ricordazione della mia infanzia e' mi parea che, essendo io in culla, che un nibbio venissi a me e mi aprissi la bocca colla sua coda, e molte volte mi percotessi con tal coda dentro alle labbra» (Leonardo da Vinci, 2000, f. 65 v.).[2]

Freud interprets the image as a representation of an oral homosexual relationship. Using documents, fragmented annotations, and circumstantial evidence, Freud imagines and attempts to reconstruct the artist's biography. In particular, he focuses on the fact—later confirmed by subsequent critics—that Leonardo was raised in the absence of a paternal figure. From this objective and factual detail, Freud infers that Leonardo's mother represented the only woman to whom the artist remained faithful throughout his life.

The other element Freud emphasizes is the conjecture that, having never felt part of a proper family, Leonardo did not allow himself the immediate gratification of sexual drives, which he consequently sublimated into his art (Freud, 1957).

The above-mentioned memory of the «nibbio»[3] fits into this hermeneutic framework in terms of a *Deckerinnerung*, or screen memory. Its significance lies in its function of taking the place, in memory, of impressions and thoughts from a later period—content which, through symbolic and analogical connections, relates to the remembered scene. Essentially, it would be a false memory, constructed by the unconscious psyche out of a series of impressions and thoughts that are artificially projected back onto an earlier period than when they were actually experienced. This is not a pathological mechanism but rather one present in the self-narration of every individual: according to Freud, once we have grown up, we all project onto our childhood something that does not, in fact, truly belong to it (Freud, 1962). The kite memory, then, would be a screen memory—but what does this memory, constructed *ex post* by Leonardo, actually conceal? Despite the fragmentary nature of the evidence available, Freud's answer is unequivocal: Leonardo would have hidden his homosexuality, repressed and subsequently sublimated through his artistic activity.[4]

To support his hermeneutic hypothesis, the psychoanalyst turns to the analysis of some of Leonardo's works, focusing particularly on the famous oil painting *The Virgin and Child with Saint Anne*, a masterpiece dating from 1510 to 1513, during the artist's full maturity. According to Freud, this painting implicitly represents Leonardo's childhood, spent between his biological mother, Caterina, and the numerous stepmothers the boy had. Indeed, while Caterina remarried after her relationship with Ser Piero, Leonardo's father went on to marry a total of four wives. Consequently, even though Leonardo grew up without a singular maternal figure of reference, he was nonetheless surrounded by many women during his childhood.

[2] «It seems that I was always destined to be so deeply concerned with vultures; for I recall as one of my very earliest memories that while I was in my cradle a vulture came down to me, and opened my mouth with its tail, and struck me many times with its tail against my lips», following Freud's mistranslation of the term *nibbio* (kite) as «vulture» (Freud 1957, p. 82).

[3] «Nibbio» is now an outdated term used to refer to a bird of prey with features similar to those of an eagle.

[4] With a less psychoanalytical and less speculative perspective, other interpreters have read between the lines of this memory-that-is-not-a-memory an act of self-legitimation for Leonardo's extensive studies on flight, to which the artist indeed devoted himself.

In Freud's analysis, the hypothesis that Saint Anne and the Virgin respectively represent Caterina and a unified symbolization of the stepmothers is not far-fetched. On the contrary, it is supported by evidence within the representation: despite the inevitable difference in age, the two women in the painting appear almost the same age (Freud, 1957). However, art historians have promptly pointed out that this is a very common *topos* of Renaissance painting (Freedberg, 1971; Kemp, 1981; Shearman, 1992). Leonardo, therefore, would not have provided any significant additional clues about his personal life but rather adhered to a *cliché* of the time.

Unaware of the numerous criticisms his analysis would later attract, Freud goes even further, asserting—this being the most contested point—that within the drapery, the blue garment of Saint Anne unmistakably stylizes the kite described in Leonardo's childhood notes. The kite, moreover, occupies a peculiar and problematic position: its tail, Freud argues, coincides with the opening of the mouth of the Christ Child, or, in line with the proposed symbolism, of Leonardo himself.

This thesis, too, has been widely discredited, as what is depicted does not resemble a kite (a bird of prey similar to an eagle). If one insists on seeing the silhouette of an animal among the folds of Saint Anne's garment, it is undoubtedly that of a vulture, recognizable above all by its long beak. Unfortunately, the misunderstanding stems from Freud's reliance on a careless translation of the passage: the Italian word *nibbio* was inaccurately rendered as *Geier*, which specifically means «vulture».

3 Psychopathography of Art

Convinced of the (improper) association between the two birds, Freud continues his reasoning by focusing on a drawing found in his anatomical notebooks, where Leonardo depicts a scene of heterosexual intercourse (Keele & Roberts, 1979, pp. 69–70). On the right, the male figure is portrayed, while on the left, the female figure is only faintly sketched. Freud emphasizes the fact that the male anatomy is rendered with far more precision, detail, and accuracy compared to the female anatomy. This observation is undeniable and further corroborated by other works of Leonardo—drawings, sketches, and drafts—in which the male form, and specifically the male genitalia, is depicted with meticulous care and abundant detail, whereas representations of the female reproductive system are much rougher, imprecise, and even inaccurate.

Scientists who have examined Freud's hypothesis to verify its validity argue that the psychoanalyst once again missed the mark, failing to take into account the limitations of 16th-century anatomical knowledge. At the time, far fewer elements were available for the study of female morphology compared to male morphology. Freud, they argue, underestimated a widespread ignorance of the period and instead diagnosed Leonardo with a homosexual phobia that allegedly led the artist to avoid dealing with such a delicate subject—not only on a personal level but even within the realm of scientific investigation (Aaron & Robert, 1982; Bergstein, 1988; Schapiro, 1956).

Not satisfied, Freud then shifts his focus to the physiognomic expression of the man engaged in the intercourse, claiming that it conveys distress and revulsion—somewhere between disgust and sadness—in a moment that would otherwise be presumed to be one of pleasure (Freud, 1957). Predictably, this observation has also been contradicted. The drawing on which Freud based his analysis is not the original but rather a reproduction in which

the contours were redrawn, and the expression of the male figure in the scene is considered unfaithful to the original.

It is evident that, from the moment of its publication, Freud's essay drew the ire of art historians and critics who refused to accept the reduction of a complex personality such as Leonardo's to a single denominator: sexuality (Eissler, 1961). More broadly, Freud produced what has been defined as an «artistic patography» (Recalcati, 2016). In his reading, the meaning of Leonardo's work is reduced (and thus homogenized) to the life of the artist. In this way, the artwork is flattened onto the biography of its creator, and more specifically, onto the seemingly pathological or psychologically ambiguous aspects of his life. However, this approach turns the artwork into nothing more than the phantom of the phantom of the unconscious (Recalcati, 2016), and the distance between the viewer and the artwork increases, generating a sense of detachment rather than a more fruitful consonance.

Furthermore, in Freud's analysis, the artwork not only reflects the biography of the artist but even becomes an expression of the creator's unconscious—those aspects of the self that remain inaccessible even to the artist. From a product of creativity and free imagination, the artwork is transformed into an enigma to be deciphered, with the task of uncovering its deeper meaning entrusted to psychoanalysis. Psychoanalysis thus becomes the custodian of the universal key to understanding the artifact. Freud's analysis effectively transcends the meaning of the artwork beyond the work itself. The artwork becomes a means to access the comprehension of the author, reducing it to a system of symbols aimed at interpreting the artist's psyche or intentions. This approach has been likened to an excessively ambitious analytical practice—comparable to that of a paleontologist attempting to reconstruct an entire dinosaur based on the discovery of its tibia (Bramly, 1991, p. 48)—and thereby ignoring the complexity and integrity of the artwork as an independent object.

The distinction between latent and manifest content, which Freud introduces in relation to dreams, is here applied to art, producing a duality that is considered, as we have seen, largely superfluous and arbitrary. The biography of the artist should not explain the artwork; rather, it is the artwork itself that creates new worlds and even generates new biographies and perspectives of life for both the viewer and the artist. Reducing an aesthetic phenomenon to the life of its author, however, denies its independence and transforms it into a mere *lapsus* or an expression of a specific psychological content. This reading, deemed reductive and misleading, has been rejected by many in defense of the idea that the artwork has its own independent legitimacy and possesses a unique complexity that cannot be compressed within the boundaries of the artist's life events.

Freud overlooked a fundamental element of artistic language, neglecting its specificities and reducing it to a matter of content, thus favoring an approach more aligned with literary studies. The expressive code of art relies on the centrality of form, which represents its primary and distinctive feature (Adorno, 1997, pp. 140–145). Form not only precedes meaning but retains a freedom that renders it independent of that meaning. This aspect emerges not only in abstract or contemporary art but in art as a whole, as form is configured as the primary vehicle of artistic expression, liberating itself from the necessity of referring to specific content.

4 Some Merits

Alongside the criticisms we have addressed thus far, it is only fair to acknowledge that Freud, as both a psychoanalyst and as the author of his study on Leonardo's work, deserves recognition for certain merits. His contribution has been significant both in the field of psychoanalytic application and in that of aesthetic hermeneutics.

First and foremost, it is important to highlight Freud's deep regard for artists and their creativity. This respect translates into a sense of admiration on the part of the psychoanalyst for the extraordinary creative capacity of artists, whom he seems to consider endowed with exceptional, almost superhuman talent. Freud attributes to them elevated qualities, recognizing in these figures a great power and a source of inspiration. Thus, Freud's approach is neither critical, dismissive, nor cynical; rather, it is respectful and admiring. The artist is seen as an individual capable of accessing depths and insights that the psychoanalyst, with his analytical tools, seeks to understand and decode. Freud therefore positions himself in a stance of intellectual deference toward those who create art.

Another merit of Freud's analysis lies in the attention it has drawn, even through its limitations and inaccuracies, to aspects of Leonardo's life that are genuinely complex and problematic. Freud brought to the forefront the issue of Leonardo's illegitimacy, along with the emotional ambiguities and implications of his relationship with his biological mother—topics that would later be explored in greater depth by other scholars. Furthermore, it is undeniable, whether it resulted from sexual repression (as Freud believed) or from another cause, that many of Leonardo's works have reached us in incomplete or fragmentary form. Leonardo was, in fact, more interested in the process of inquiry and discovery than in the completion of artistic (and scientific) endeavors.

The final aspect worth underlining is Freud's attempt to highlight the unique and individual traits of the artist. Although this approach has faced significant criticism, it is important to recognize that Freud's primary objective was not so much to provide a key to interpreting Leonardo's work as to explore and attempt to understand what he described as the «mystery» of Leonardo's character. Consistent with his profession, Freud approached Leonardo's work not from an aesthetic perspective or as an art historian, but by using it as a tool to investigate the artist's complex and elusive personality.[5]

In a broader perspective, Freud's essay on Leonardo, along with similar analyses he conducted, contributed to making art and psychoanalysis two inseparable elements of a unified discourse. On the one hand, psychoanalysis has proven deeply indebted to artistic activity, which remains one of its privileged objects of investigation and a boundless source of insights and interpretive possibilities. This interest, first ignited by Freud's pioneering studies, persists to this day, fostering a fertile dialogue. On the other hand, art itself, following Freud's early attempts, began to explore and render visible aspects connected to the psychoanalytic dimension.

[5] For further discussion, see Clemenz (2003), which critically examines Freud's approach to Leonardo, highlighting its methodological limitations and the broader challenges of applying psychoanalysis to art. Additionally, Herdings (1998) situates Freud's interpretation within contemporary psychoanalytic debates, expanding on a lecture delivered in 1998.

5 Who Was Leonardo?

In Freud's defense, it must be emphasized that the life and work of Leonardo da Vinci present such a wealth of peculiarities, curiosities, and eccentricities that it is almost inevitable to yield to the temptation of elaborating interpretations about his figure. However, rather than demonizing Freud for his interpretations or, conversely, uncritically idealizing Leonardo, it remains appropriate today to approach the artist through a balanced lens, while striving to avoid the errors outlined earlier. To move in this direction, it is helpful to start with a fundamental question: who was Leonardo?

The answer to this question reveals the extraordinary versatility of the man, reflected in a list that testifies to the breadth and depth of his talents. Leonardo was a military engineer (it was in this role that he introduced himself to Ludovico Sforza in his letter of presentation), painter, sculptor, draftsman, anatomist, geologist, archaeologist (as evidenced by his studies on fossils), set designer (he created stage designs for Ludovico Sforza, Francis I, and Pope Leo X), botanist (conducting detailed studies of plants), musician, hydrologist (famous for his studies of vortices and the movement of water), and cartographer. In the latter field, his work was groundbreaking: the map of Imola, for instance, stands out for its use of an aerial perspective that preserves the proportions of the space depicted—an approach revolutionary for its time (Bramly, 1991, pp. 304 ff.).

This brief overview makes it clear how Leonardo was a unique figure, capable of integrating an extraordinary variety of disciplines and skills into a singular and unparalleled legacy.[6]

Another distinctive trait of Leonardo's personality is the *ludic* dimension that accompanied his personal and creative development, from childhood through adulthood. This playful attitude was not merely an expression of childhood whimsy; rather, it emerged as a unique way of exploring the world, often blurring the line between entertainment and artistic or scientific experimentation. Art itself, after all, is deeply connected to playfulness, as it involves the capacity to amaze and to create an alternate universe in which reality is reimagined through the lens of imagination. In this context, play is not a symbol of escapism but an exploratory method, a form of knowledge that, in Leonardo's case, also became a means of reflecting on the infinite potential of the human mind.

Leonardo used play to explore the improbable, sometimes anticipating concepts and technologies that would only become realities centuries later. This ability to imagine the future, combined with his creative exuberance, demonstrates how the playful dimension was inseparable from his artistic and intellectual pursuits. In particular, his most imaginative inventions and projects—from flying machines to automata—should not be seen as technical failures but rather as exercises in imagination, attempts to challenge the limits of reality and transcend the conventions of rational thought. Leonardo was not satisfied with representing the world as it was; he sought to transfigure it, to invent new possibilities—an attitude that aligns with the notion of art as «a lie that makes us realize truth» (Picasso, 1923).

[6] Karl Jaspers (1962, pp. 1–58) stated that Leonardo's project was the total knowledge of the world. Among his scientific discoveries, in addition to the aforementioned studies, are insights into the wave nature of light, the mechanisms of arteriosclerosis, the structure of the heart's atria, the concept of friction, and the principle of energy conservation. This boundless ambition inevitably created a gap between the grand scope of his plans and their actual realization, leaving many promises unfulfilled.

At the same time, this playful element in his personality manifested as a curiosity that at times might appear morbid, as seen in his anatomical dissections or the war machines he designed. Yet, even in these cases, this was not an exaltation of cruelty or violence, but rather an innocent, exploratory approach that reflects the complexity of a mind capable of uniting the fantastical with the rational. Leonardo himself, a self-proclaimed vegetarian and opponent of violence, demonstrates that this apparent cruelty was, in truth, part of an aesthetic playfulness—an ultimate attempt to understand and represent the complexity of the world.

After his death, the manuscripts in which he deposited his research and experiments—preserved as drawings and notes—were carefully safeguarded by Francesco Melzi, his pupil, model, friend, and perhaps companion.[7] Unfortunately, Melzi's son showed far less regard for the value of this heritage, distributing it haphazardly to anyone who showed interest. This act marked the beginning of such extensive dispersal that it has been described as a veritable «shower of confetti» across the libraries of Europe (Bramly, 1991, pp. 15–29). It is estimated that the material available today—comprising approximately one hundred thousand sketches, drafts, and drawings, along with ten thousand manuscript pages—represents roughly two-thirds of Leonardo's total output. His notes and drawings, originally scattered among libraries, courts, and families across the continent, were later collected and organized into various *Codices*.[8] Clearly, this systematization was not Leonardo's own doing but the result of the efforts of those who, over time, sought to recover and

[7] Despite the near-unanimous rejection of Freud's instrumentalization of Leonardo's work as evidence of his sexual preferences, there remains significant agreement among interpreters and biographers regarding the possibility that Leonardo was homosexual. To this day, no definitive proof exists to support this hypothesis, but a series of clues and considerations point in this direction. Leonardo never married, and aside from the figure of his mother Caterina, his biography reveals no significant women or documented romantic relationships. Moreover, in his youth, he was accused of sodomy. The trial was likely built on tenuous grounds and, according to some interpretations, the young accuser may have been merely one of Leonardo's models who sought revenge on the artist for an unknown reason.

Two particularly important male figures stand out in Leonardo's life. The first is Gian Giacomo Caprotti, known as Salaì, whom Leonardo took into his workshop as a youth. Salai was a controversial figure, often described as a troublesome boy and even a thief, yet Leonardo kept him close for many years, providing him with a regular allowance and welcoming him into his home. Despite Salaì's limited artistic abilities, he remained a constant and significant presence in Leonardo's life. The second is Francesco Melzi, whom Leonardo met in 1507 when the artist was already in his sixties. Melzi became a devoted companion and an essential collaborator in Leonardo's final years, accompanying him during his stay in France and caring for him until his death. In his will, Leonardo left the bulk of his estate to Melzi, while also reserving a portion for Salaì. These details, while not constituting explicit confirmation of Leonardo's sexual preferences, suggest a particular closeness and affection toward these men (Kemp, 1981). Although not focused exclusively on Leonardo, Rocke (1996) provides a historical and cultural context useful for understanding the dynamics of male homosexuality in Renaissance Florence.

[8] The most famous collection of Leonardo's writings is undoubtedly the *Codex Atlanticus* (Leonardo da Vinci, 2000), an invaluable testament to his artistic and intellectual activity. The name derives both from the breadth and variety of the knowledge it contains and from the large format of the sheets that compose the collection. Leonardo, in fact, had the habit of writing and drawing on loose sheets of paper, with the systematically abandoned intention of reorganizing and transcribing them into a more ordered form. Another highly significant collection of notes is the *Codex Hammer* (Leonardo da Vinci, 1987, a manuscript that, incidentally, was purchased by Bill Gates in 1994), which preserves a substantial portion (or so it is hoped) of Leonardo's studies in hydrology. This codex focuses particularly on phenomena related to water, including the movements of vortices and the dynamics of flows—topics that fascinated Leonardo for much of his life. Both codices consist of study notes and scientific annotations rather than personal reflections. As a result, the criticism sometimes directed at Leonardo regarding a supposed «emotional aridity» is entirely misplaced: these documents were not intended as intimate diaries but as working tools and testimonies of his extraordinary research.

organize the fragments of his vast production. This process has enabled the preservation of a considerable portion of his legacy, but it also leaves open the possibility that many of his reflections have been irretrievably lost.

The physical and intellectual dispersal of his work reflects, in a sense, the very nature of Leonardo's thought: multifaceted, polymathic, and capable of embracing a multitude of disciplines and perspectives. Paul Valéry described Leonardo as a man who was «always thinking in terms of the universe», a description that aptly captures the exceptional nature of his figure (Valéry, 1972, pp. 5–6). Valéry also compares him to mythological creatures like the centaur or the chimera, symbols of the impossible and the incredible. Such analogies are grounded in the breadth of disciplines in which Leonardo excelled, as previously mentioned.

Valéry writes: «I shall follow him as he moves through the density and raw unity of the world, where he will become so familiar with nature that he will imitate it in order to use it, and will end by finding it difficult to conceive of an object that nature does not contain» (Valéry, 1972, pp. 6–7).[9] This observation highlights one of the most significant aspects of Leonardo's mind: a mode of thought capable of integrating diverse disciplines, without adhering to a strictly systematic approach. Once again, it is Valéry who describes Leonardo as a «systemic thinker» (Valéry, 1972, pp. 64–65), emphasizing his ability to comprehend phenomena and relate them to a multitude of other fields of knowledge. This perspective distinguishes the concept of *systemic* from that of *systematic*: while the latter implies coherence, order, and adherence to a defined conceptual structure, Leonardo's thought unfolds in a rhizomatic fashion, resembling a network in which no single node serves as a central point but instead as a periphery, always pointing toward other connections. His work, both artistic and scientific, is rooted in this capacity to forge unexpected links between seemingly distant domains, revealing a polymathic and multidirectional intelligence.

Leonardo's final note in his manuscripts provides the perfect synthesis of this trait: «Etcetera. Because the soup is getting cold. The phrase, seemingly trivial, encapsulates the frenzy that characterized his approach to knowledge. The use of etcetera reveals an unrelenting chase toward new ideas and projects, the impossibility of pausing long enough to exhaust one subject before moving on to the next. Daily life—here represented by the need to eat the soup before it grows cold—intertwines with creative urgency, illustrating the constant tension between the center of his attention and its inevitable escape toward something beyond. Leonardo's thought is distinguished by a heuristic approach—it proceeds through trials, intuitions, and discoveries. This is not a rigorous or systematic thought process but rather an intuitive one, often left unverified, as though the artist were continually struck by flashes of new images and visions. His is a creative force in perpetual imminence, seemingly emerging through endless prefigurations.[10] The notes that have

[9] Freud, on the other hand, described Leonardo as the «Italian Faust» (Freud, 1957, p. 75) due to his inexhaustible thirst for knowledge and attributed to him an extraordinary talent, emphasizing how he managed to become a specialist in every field he undertook. His volcanic character fully embodied the Renaissance concept of *ars*—understood as practical excellence in every domain, combined with dedication, inquiry, and mastery.

[10] In the *Lives of the Most Excellent Painters, Sculptors, and Architects* (2008), Vasari criticized Leonardo for the dispersion of his talent, reproaching him for dissipating his extraordinary abilities in a relentless search rather than focusing on a single theme or project. Vasari highlights how this intellectual restlessness led the artist to leave many of his works unfinished, a point also noted by Michelangelo, who, in a famous episode, taunted Leonardo about this very weakness, striking him at his most vulnerable point. Leonardo himself, with bitter self-awareness, admitted: «As every divided kingdom falls, so every mind divided

come down to us bear witness to the fragmentary, inconclusive, and dispersive nature of Leonardo's character, to the point that they sometimes resemble the writings of someone in psychoanalysis. In certain sequences of words, one can discern an organization of thoughts that follows the principle of free associations rather than any logical or thematic structure.

A striking example of this lack of method can be found in the *Codex Atlanticus*, where a single page features seemingly disconnected drawings: an anatomical reproduction of the female sexual organ, a flower, a study of the anal muscles, a war machine, and the plan of a pentagonal fortress surrounded by a small stream of water. At the bottom of the page, Leonardo enigmatically writes a single word: «False». This miscellany of images and themes, combined with its cryptic conclusion, imbues these pages with an atmosphere that is not only surreal but distinctly *surrealist*, evoking an aesthetic that anticipates postmodernism.

6 The Overflow of Genius

Today, it may be time to shift perspective in the analysis of Leonardo, while still delving into the folds of his life and personality to understand the exceptional nature of the man and the artist he was. However, the focus is no longer on recognizing his genius despite the dispersal of his talent, but rather on identifying this very dispersal as the hallmark of his creativity. In the past, critiques like those of Vasari and Michelangelo[11] emphasized what Leonardo might have achieved more or better had he only channeled his multifaceted mind in a single direction. A shift in perspective, however, allows us to see in the very multiplicity of his interests and his apparent inability to complete projects the core essence of his genius.

Leonardo's exceptional nature can be understood through the concept of excess—a spilling over of intuitions and projects that is not a flaw or a weakness but rather an intrinsic necessity of the creative process. By definition, the artist does not confine himself to the ordinary; instead, he exceeds, disperses, and overflows. Such abundance and exaggeration define his transcendence—his ability to move beyond the limits of human finitude.

In this sense, Leonardo is a paradigmatic example: the relentless accumulation of notes, his distractions toward new fields of inquiry, the procrastination that often pulled him away from completing works, and the overload of projects too ambitious to realize are not symptoms of disorganization or fragility but powerful expressions of his creative force. Accumulation, procrastination, distraction, overload—Leonardo not only coexisted with these conditions (which today might be interpreted—and treated—as manifestations of anxiety) but transformed them into incentives for creation.

His art was not the outcome of orderly planning but rather the product of a creative exuberance that reflects his protean approach to knowledge and the world. This notion of excess as a marker of genius invites us to value what might appear useless: the curious investigation of the world, the relentless discovery of what surrounds us, and the capacity to perceive reality in its continually renewed originality.

Footnote 10 (continued)

between many studies confounds and saps itself» (Leonardo da Vinci, 1883–1885, vol. 2, no. 1160). For the critical lens he adopts, Vasari can be compared to Freud, who, as we have seen, employs a similar method in interpreting Leonardo's life through a psychological-biographical perspective. Freud reads Leonardo's genius and polymathy as the result of an unresolved inner tension.

[11] See note 9.

Leonardo's masterpieces, precisely because of their incompleteness, embody his striving toward an encyclopedic, itinerant form of knowledge—a kind of «nomadic» intellectual pursuit—that defines both the nature of his thought and the exceptional quality of his creativity.[12]

It is precisely in the apparent disorder of his work that the uniqueness of a genius is revealed—a genius capable of transforming limitations into resources, making dispersion a method, and excess a necessary condition for his greatness. This shift in perspective invites us not only to understand Leonardo but also to reconsider the essence of the artistic process and the very nature of creation as an act that necessarily goes beyond its own intentions and possibilities.

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Data Availability No datasets were generated or analysed during the current study.

Declarations

Conflict of interest The authors declare no competing interests.

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[12] For Leonardo, painting represents the privileged form of art, as it has the capacity to evoke every aspect of reality through the depiction of a single quality, intertwining within it advances from multiple disciplines. Indeed, his pictorial work is the result of a continuous transfer of knowledge acquired in various scientific fields, such as optics, fluid dynamics, and geology. For example, in *The Virgin of the Rocks* (1483–1486), the depth of the backgrounds—rendered with cool, blue tones—is the product of his studies on the refraction of light. Similarly, in *The Battle of Anghiari* (1503–1504), the dynamism of the figures reflects the patterns of vortices observed in his fluid experiments. The same studies influence works like the *Study for the Head of Leda* (1505–1508), where Leonardo portrays the hair with precision inspired by the flow of water currents.

Among his most iconic masterpieces, both in *Lady with an Ermine* (1489–1491) and the *Mona Lisa* (1503–1506), the dynamism of the pose in the former and the enigmatic expression of the smile in the latter suggest a profound reflection on the human soul and its complexities. Regarding the *Mona Lisa*, the hazy, almost spectral landscape contrasts with a smile that embodies ambiguity and mystery, transforming the painting into an enigma that remains unresolved to this day. In *The Last Supper* (1495–1498), Leonardo explores the psychology of each figure, depicting them as actors in a gestural drama that reveals the movements of the soul. A pioneer in the study of physiognomy and psychology, Leonardo anticipates in his paintings a sense of the uncanny later made famous by psychoanalysis. He ultimately reverses the relationship between the viewer and the artwork: in his masterpieces, it is the observer who becomes the object of art's gaze, rather than the other way around. His ability to render faces ambiguous and impenetrable—as in the case of *Saint John the Baptist* (1508–1513)—demonstrates a psychological depth that challenges rational understanding. See: Arasse, 1997; Caroli, 1995; Pedretti, 1973.

On this level, Leonardo's paintings do not offer definitive answers but instead generate and renew, even across centuries, vital questions and tensions. See, in this regard, the reflections of Didi-Huberman (2005), who, in contrast to the Freudian assertion from which we began, argues that art is not a riddle requiring a solution, but rather a generative force of questions and tensions that are inexhaustible.

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